

office practices

School Executive



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-Marvin Williams, Supt., Roosevelt Public Schools, Lubbock, Texas

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chool Executive

JUNE 1957

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Preview of July

This year the NEA is celebrating its centennial and also holding its annual convention the first week of July in Philadelphia. We join with many others in saluting the NEA in the July SCHOOL EXECUTIVE. We also are very proud to present Commissioner Lawrence Derthick's views on the U.S. Office of Education: the Green Sheet is the place to look for this. One of the special features in July is a symposium of practice with the tough problem of repairing and renovating school furniture — several school systems tell how they do it. Architect Alonzo J. Harriman presents some interesting guideposts to cost-cutting in connection with new buildings. You will be fascinated by John Carr Duff's article in which he describes home-grown colleges for home-grown folks. Finally, every schoolman should read Alden T. Stuart's article on the professional growth of the school administrator. Here we have just a sampling of our big July issue. Wishing all of you a glorious Fourth of July, I am

> Sincerely, Walter D. Cocking, editor

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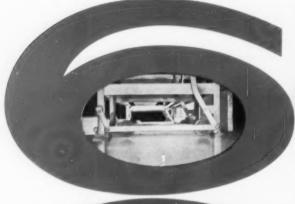
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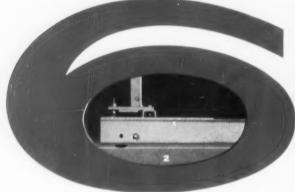
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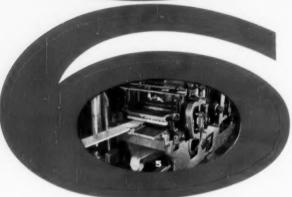
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AS I SEE IT

by toolen & Jocking

National Policy for Public Education

Does america have national policies on public education? If so, what are they? How were they enacted? Do they change? Such questions are increasingly in the individual and group minds of people. Undoubtedly one of the outcomes of the White House Conference on Education was to bring these questions to the fore.

It would be well at the outset to distinguish between "national policy" and "federal policy." Federal policy finds its basis in the Federal Constitution and in federal statutory law, judicial decisions and administrative regulations. National policy on the other hand reflects the beliefs of people (at least a large percentage of them) on the place and function of education in American life. It might be described as representing the conscience of the people on issues affecting them.

National policy grows out of presentation and discussion of issues, the resulting thought, and finally a consensus of belief. The process is slow and evolutionary. When finally formed, it resists efforts to change it, and has a strong and lasting effect on the issues it is based on.

During our life as a nation, the people have hammered out several policies with respect to public education:

T is national policy that every child is entitled to equal educational opportunity at public expense. This policy was not arrived at easily or quickly. It was years in the making. Argument and emotions were aroused to the boiling point. Slowly opinion jelled. Now the overwhelming judgment of the American people supports the policy, although they have not yet determined the extent of this educational opportunity. Today it applies to elementary and secondary school education. Tomorrow it may be extended to include college.

It is national policy that every child must avail himself of the educational opportunity. Here policy has been supported with legislation. By 1918 every state had enacted a compulsory attendance law. It is the clear intent of the policy that the national welfare demands all youth to use the opportunity that society provides.

It is national policy that only educated people are capable of self-government. Jefferson was the early and brilliant exponent of this idea. Years of discussion followed. Slowly but inexorably its truth took hold. The vast majority of Americans finally recognized its truth. Today it is a cornerstone of our beliefs as to the necessity of universal public education.

Another national policy which was easier to formulate and to accept is that the public school has the obligation to teach the American heritage. Today it is almost unthinkable that anyone would dispute this policy. Its significance lies in the fact that to the public school is given this most important duty. It signifies the great faith which the American people place in public education.

As I SEE IT, a belief becomes national policy when it has been accepted by the people generally as being in the public interest. Who formulates such policy? Many participate. An idea is put forward by an individual or by a group. It is debated, the pros and cons of argument are arrayed and assessed. Slowly public opinion forms. Finally the idea wins acceptance or is rejected. Here we have the democratic process at its best.

In the formulation of national policy regarding education, many groups take active roles. Among them might be listed the U. S. Chamber of Commerce, patriotic organizations like the Daughters of the American Revolution and the American Legion, and professional organizations headed by the National Education Association. The purpose and work of the Educational Policies Commission is largely concerned with formulation of national policy. An important role of citizen groups is the opportunity they provide for a public forum of issues out of which decision can be made. Undoubtedly, the recent White House Conference on Education made its most important contribution in this respect.

Finally, it should be noted that those who do not believe in public education and current national policies are always active in attempting to change these policies and to gain acceptance for new and different ones.

As I see it, one great truth emerges from any consideration of national policies for public education. Those who believe, as I believe, that public education is a cornerstone of our way of life must be constantly in action to do that which is necessary to retain present policies and to secure new ones. The process is debate and discussion in the great national crucible of public opinion.



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comments on the educational scene

Keep Green at the Top

MANY YEARS AGO when I was a young administrator, a wise superintendent said to me, with respect to selecting teachers, "look for teachers who are green at the top." He went on to explain that anything "green at the top" was alive. He believed that a vital factor in the success of a teacher was to be alive. By that he meant love of people, curiosity in people and things, real interest in things people do. These are the things, he said, which cause people to sparkle and live.

This superintendent was not discounting the importance of knowledge and book learning. He was emphasizing that something more was necessary. How right he was. The vital factor in teaching success lies in the relation of teacher and pupils. Without vital interest in the lives of pupils, all his knowledge is largely useless. But with a strong interest in his pupils and their problems, his teaching can become a vital factor in their growth.

Our Busy Curriculum Developers

O NE OF THE MOST dynamic of our national education organizations is the Association of Supervision and Curriculum Development. With its membership largely drawn from those concerned with instruction, it is proving to be a constructive force in finding better solutions to the many instructional problems facing our schools.

The annual meeting of this Association is particularly praiseworthy. It is fundamentally a working session with its several thousand members divided into small groups to examine and think through various instructional problems. The results to date indicate a continuing interest in many issues. Its members continue their deliberations and study in their own systems. Ideas and practices are exchanged. Research is proposed and some gets done.

Probably most constructive of all, the Association has developed among its members a feeling of participation in a common enterprise—improving instruction. We salute the ASCD for what it has already done. We trust it will not lessen its efforts to find still better answers.

The Fury of Fire

O N WASHINGTON'S birthday, 1957, the fury of fire was felt in the Flat Rock School near Mt. Airy, North Carolina. The failure to provide for the safety of children and teachers brought death to two and agony to many. The building was non-fire-resistive. Its auditorium curtains burned rapidly and helped to spread the fire. This ill-fated and unsatisfactory structure was a smoking ruin a few minutes after the fire started. One child died in the fire, and one teacher succumbed in the hospital of burns incurred while trying to save the child.

There seems little excuse for this disaster. Man knows how to construct a fire-resistive attic; he knows how to flame-proof auditorium hangings, how to provide adequate exits, and how to wire his building so that hazards are reduced to a minimum.

How many more lives of children and teachers must be sacrificed before school boards take the initiative in removing these combustible buildings from the community scene? A raging fire, with children's lives at stake, should not be the necessary prod for communities to provide truly protective schoolhousing for their children.

-N. L. ENGELHARDT, SR.

Scarcity of Qualified Teachers

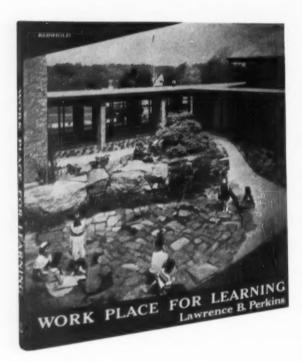
THERE ARE two primary problems connected with the present teacher shortage: the impossibility of obtaining enough certified teachers, and, more important, the shortage of qualified teachers. While people differ somewhat on what "qualified" means, we could probably agree in general terms. We would agree that a "qualified" teacher is a person who has chosen teaching as a vocation, who has the needed personal attributes, and who has undergone special preparation for teaching. Many would probably disagree as to what a trainee should do to meet these general requirements.

Judged by any set of reasonable requirements, the number of qualified teachers is indeed insufficient. Too many children and youths are being "taught" by too many who are not qualified. When the work of teachers is criticized, as it is today, it is actually a recognition that we have far too few qualified teachers. Society, and not the teaching profession, is responsible for this situation.

The Case for Research

THE LIFE BLOOD of any undertaking is research. Business relies on it for new products and the refinement of old ones. The professions rely on it for new advances in their fields. Society depends on it for progress in public health, safety, government, and for learning how to get along together better. It could be expected therefore that educational institutions and their staffs would use research to improve education.

It may come as a shock therefore to realize that there is less research on the problems confronted by schools and colleges than in almost any other profession or business. Loaded budgets, already strained to provide a minimum of personnel and facilities, have contained only token amounts for research. But, if we stop to think how little is known for sure about the educational process itself and about all the structure, facilities and personnel which are used, it must be evident that here is a vital area which is desperately in need of research.



Book on School Buildings— Inspiration Plus

Work Place for Learning, by Lawrence B. Perkins, Reinhold Publishing Corp., New York, 1957, 63pp., \$4.00.

The pet cliches, the striking adjectives, the tried-and-true cant which launch most educational books are singularly inappropriate for the announcement of Work Place for Learning. This little book is truly a gem. Its unclouded beauty and lucid style cannot be bespangled with trinkets from a tired reviewer's collection. It speaks the language of simplicity and, as is often true of simplicity, it brings an imperative and profound message.

The message is imperative because it comes at a time when dreariness, cheapness, and design mediocrity geared to a mass market are becoming distressingly widespread; it reevaluates and restates the human bases of creative school design. It is imperative because no finer time has existed for school planners to make real and lasting contributions

to their communities than the present. By a delightful synthesis of words and pictures, Author Lawrence B. Perkins advances a student-centered approach shown in these designs.

The message is profound because it touches upon the fundamental motivators of human behavior. In this respect the book is not about architecture, but about children and adults. It recognizes what is known about the psychology of learning: it knows that moods, attitudes, and values are the most formidable stimulators in education: it shows how a person's senses may be awakened, tastes developed, and values shaped by imaginative architecture. That formerly undescribed, and indescribable, something which makes a school an inviting place to approach, and an inspiring place for work is made understandable by a harmonization of people and design.

While turning the pages of this book a person comes to understand those pleasurable feelings he had when he visited any one of America's few finely conceived school buildings. Design can make a difference. The author writes:

"Entering the school, there are no barriers from the outside; inside the school the outdoor scene is constantly in view. Now leaving the building, the transition from indoors to outdoors is gradual, almost imperceptible. The student was never completely separated from the outdoor world, so he never feels trapped in the building, never feels 'unchained' when he leaves. His school 'plant' is an interesting site, itself part of the world, and only partly roofed."

This book may be read in an hour. But so difficult is it for many of us to break from the traditional, illogical though it may be, that it may take days, even months, of mental reorientation before the essential meaning of this book emerges. Certainly the ideas expressed are not new, nor did they occur to the author overnight. They are the fruit of many years of study, thought, and courageous, imaginative experimentation.

We commend this book to every school administrator, every school board member, and every member of a building planning committee. We hope that it might then be shown to the architect with the charge: "Let this be your inspiration."

A Living Lab for Research

A school building to be used as a "living laboratory" for research in heating and ventilation has been built by an Iowa manufacturer. The two-room building will house elementary and secondary classes from Altoona, Iowa Consolidated School District, giving engineers real-life conditions for testing new equipment in heating, ventilation and cooling.

The school was built by the Lennox Industries Inc., of Des Moines, Iowa and is being equipped with their new Comfort Curtain system of heating and ventilation. Designed by Architect R. C. Ovresat of Chicago, the building provides considerable space for test facilities.

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Dr. Bingham's first speech in the new superintendency was a well-received piece of oration. His theme blended with the beliefs that were near and dear to many of his listeners, for he spoke on "The Four F's"—faith, family, friendship and free universal education.

cation.

Superintendent Bingham was a big, handsome man with an impressive flair for words. After his address, nearly everybody praised



Vivienne Anderson New York State Education Department

his genuine grasp of basic cultural values. Only a few skeptics maintained that he couldn't have made a "safer" speech. After all, who could disagree with him without disavowing the most widely accepted tenets of our society? He hadn't touched on a single crucial problem affecting education or suggested the nature of his future relationship to the schools, the staff or the com-

"The Four F's" was considered by some to be a conventional exposition of platitudes. And Superintendent Bingham's administration, during his three years of tenure, followed in kind. Classes stayed too large. Much-needed programs failed to evolve. Relations with the local newspapers deteriorated because of the superintendent's antagonism toward the printing of education news that he did not release. But his speeches and his professional articles glowed with essential truths and undisputed principles. The big, obvious trouble was that his words overshadowed his actions.

Education today demands that the administrator's actions speak louder than words. This calls for educational leadership that refuses to ignore the existence of crucial issues, that will not sidestep the search for cooperative solutions to difficult problems, that does not avoid action because of the fear of personal criticism.

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demands action leadership because of the determined pressures that currently confront the schools. These pressures involve:

The Inquiring Public Mind. A tremendous mounting wave of citizen interest in education confronts the school executive in the form of public questions, criticisms and other requests for knowledge about education.

Rocketing school costs have provided a natural springboard for this spiraling public concern which has spread beyond the initial query, "Are we getting our money's worth?" to "Can Johnny read?" and "Are we offering a school program that prepares youth for the trained careers that await them?"

Innocuous, well intentioned statements of theory will not satisfy public interest and curiosity—or build public understanding and support. The school administrator can only satisfy the inquiring public mind by building a program that will stand the critical test of public scrutiny, and by putting this program and concrete plans for its future growth clearly into the public record. This involves far more than words. It mandates a responsibility for creating an educational program that represents the philosophy we mouth!

The Need to Build Educational Leadership as a Profession. Educational leadership does not seem to attract starry-eyed youngsters. When the family asks Junior what he wants to be when he grows up, his priority professional choices are usually medicine, law, science and engineering. These are the "prestige" careers in our society. Perhaps education was too dull and educational leaders too unchallenging to excite interest in pursuing school administration as a career.

What you do in your school—and in your community—can raise educational leadership to the same level as the "prestige" professions in the eyes of the community. Only positive leadership and real programs of action by school administrators, along with careful, systematic interpretation of their programs to the public, will bring the social approval and financial return comparable to the complexities of the job. Higher salaries and community prestige will, in turn, attract additional high caliber people to the profession of educational administration,

The Need to Retain and Attract Staff Members. Staff respect sinks to a low level and staff morale descends with it when the school administrator "talks" a good educational system. Words can't inspire, fool or confuse the staff. For faculty members stand on the front line of reality and every weakness and need of the school system affects them personally in their daily efforts to teach.

When the administrator speaks, he does well to measure his words—not only for length but for depth. What you say to your staff and your public should dig into the heart of your school program and its problems.

Educational leaders will advance their profession by shutting off the agonizing breath of pure verbalism and concentrating on creating educational programs that will gain public respect and widespread community support.



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CHARLES

11th & Hollywood East Orange, New Jersey

The roving eye ... observations of a superintendent*

THERE IS NOTHING to take the bitterness out of criticism like a little satire. To avoid a martyr complex. we administrators could profit by an experience of Harry Emerson Fosdick. Several years ago, while he was undergoing a vitriolic attack, another clergyman described him as a "termite gnawing at the temple gates." Without bitterness, Dr. Fosdick replied simply: "Well, one consolation is that I am surrounded by a lot of bigger bugs."

Ulcers, someone once said, come as a result of mountain climbing over the molehills. Abe Lincoln, amid all the bitterness of the Civil War, said, "If I did not laugh, I think I should die."

Early in my teaching career, a certain Sister Springer taught me a lesson. Now some people gossip only to pass the time of day, but this lady was a perfectionist. During a teachers' party one evening, my professionalism lapsed for a moment. I snapped a dishtowel, college fashion, at one of my female cohorts. Coed fashion, she showered me with dishwater after which she retreated, pursued by the villain-me. Later, I learned much to my discomfiture that Sister Springer, who was passing by on her way to a prayer meeting, questioned my motives. It was a bitter blow. But I found release in writing the following lines which, now that she has gone to her reward, I may share with my colleagues:

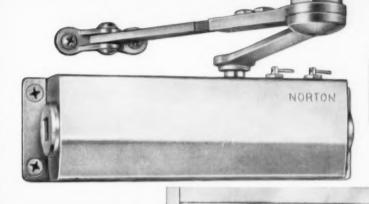
A GOSSIPER'S ELEGY Say a prayer for Sister Springer, Let no tear your eyes bedim, Lest angelic wings should bring her Back into our midst again. Best of luck to you, St. Peter! You may need it if you meet her. Should there soon an ugly rumor In celestial circles grow, Spreading like a cankerous tumor, We'll rest easy here below. You, no doubt, can there perfect her With your magic lie detector.

*by John W. Harold, superintendent, Cedar Falls, Iowa, Schools

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alloy shell.

Ultra-Modern in clean-lined functional design...Traditional in ruggedness of construction...full rack and pinion dependability of operation.

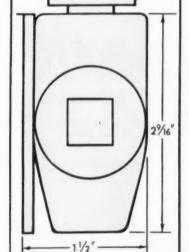
After years of research to perfect suitable alloys and designs, Norton now offers the very first door closers which are not cast iron...not die cast or sand cast but extruded from tough aluminum alloy of such density that leakage through the shell is eliminated.

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WORLD'S LEADER IN PUBLIC SEATING GRAND RAPIDS 2, MICHIGAN

Should You Encourage Your Child to Become a Scientist?

by RICHARD WYNN

Associate Professor of Education Teachers College, Columbia University

Should you? It depends upon many things, as does the choice of any vocation. It depends upon the occupation's importance to society... upon the relative supply of and demand for workers... upon the availability of training required... upon the financial regards of the job. And it depends upon the compatability of your child's interests and abilities with the demands of the job and the degree of job satisfaction he is likely to enjoy in a particular type of work.

Let us look at each of these factors in relation to careers in science.

How important are scientific workers in our society?

Certainly scientific workers are very important. The great advances of our industrial enterprise, our systems of transportation and communication, our national health, our agriculture, our national defense are all dependent on the excellence of our scientific and technical personnel. Moreover, we are on the threshold of the automation era which portends ever greater importance of such personnel.

But there is an alarming indication that some spokesmen have overdrawn the importance of our scientific and technical advancement at the expense of equally critical areas of human enterprise. The Soviet Union's emphasis on the training of scientists, dedicated to the rapid development of instruments of war and devices for economic penetration of undeveloped countries, poses an ominous threat. This threat to our

national security and economic well-being has resulted in a frantic propaganda campaign in our country for more scientists at all costs.

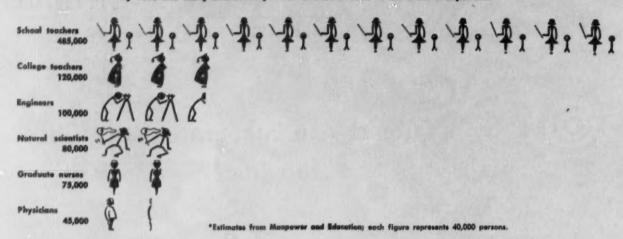
But let us contemplate the costs. An analysis of the front page stories of *The New York Times* in one week reveals a number of problems and events of major consequence in various fields in the following order of frequency:

ne ronowing order of frequency.	
U. S. relations with other nations	 21
Governmental problems of other lands	 12
Economic problems	 12
Relations between other nations	8
Labor-management relations	
State government	
Legal problems	
Armed forces	
Crime	
SCIENCE	
Civil rights	
Sports	
Local government	
Education	
Art	
Music	
Miscellaneous	2

While one might argue that scientific concerns permeate many problems in the other categories above, one is still impressed by the compelling importance of public administrators, labor leaders, social workers, economists, lawyers, educators, business executives, artists and many others.

When asked what line of inquiry would yield the greatest ultimate development in the future, the eminent physical scientist Steinmetz replied that the greatest discoveries would be made in metaphysics, the indispensible complement of the sciences in arriving at a full view of life. The

No. 152. Reprints in quantities of ten or more may be purchased from The School Executive, 470 Fourth Avenue, New York 16, New York. 10 copies for 1 month: \$1.00, for 12 months: \$10.00; 25 copies for 1 month: \$2.00, for 12 months: \$20.00; 50 copies for 1 month: \$3.00, for 12 months: \$30.00; 100 copies for 1 month: \$5.00, for 12 months: \$50.00.



American Association for the Advancement of the Sciences also has suggested that man's major preoccupation in the next century may be along a metaphysical inquiry into the nature of life and the universe. Thus one is forced to conclude that science is but one of several important areas of human enterprise.

What is the relative supply and demand for workers in scientific fields?

Certainly the demand is great. Our expanding technological development, our demand for more consumer goods and services, our need for public works, our disposition toward enlarged programs of technical assistance to other lands, and our mammoth need for stronger national defense all combine to enlarge our need for scientifically trained personnel. Information from recruiting offices of 200 business and industrial companies (reported this year in a Northwestern University bulletin, Trends in the Employment of College and University Graduates in Business and Industry) indicates that the demand for inexperienced college men in 1957, as compared with 1956, has increased 35 percent in engineering, chemistry and physics, as compared with 30 percent in other fields.

But there is some evidence that our need for scientific manpower has been overstated. Help-wanted ads present a distorted picture of our need for engineers, for example. One engineer sent the names and biographies of three competent working engineers to 105 companies advertising desperately for engineers—17 companies did not even reply; 66 didn't bother to answer specific questions raised in the letters of application; in 50 cases where application forms were submitted, more than a quarter of the companies failed to acknowledge receiving them; only 14 companies sent follow-up letters.

There is further evidence that industry has been stockpiling engineers by using them as executives, salesmen and draftsmen. Even though the need for scientists and engineers is sometimes overdrawn, it is apparent that, barring an economic recession, our need for them will certainly not decline in the next decade.

But our need for trained manpower in other fields is also great. For example, the Educational Policies Commission, in its publication Manpower and Education, estimates that we shall need in the next decade one additional nurse for each additional natural scientist, five additional teachers for each additional natural scientist. We must not become preoccupied with our need for scientists at the expense of other undermanned fields. Excessive recruitment in one field may impoverish another.

Fortunately there are spokesmen, even among those directly concerned with increasing our scientific manpower, who urge cautious action. John Mayor, director of the Science Teaching Improvement Program of the American Association for the Advancement of Science, cautions against placing excessive emphasis upon science in high school programs and unbalanced recruitment of scientists. Howard Bevis, chairman of the National Committee for the Development of Scientists and Engineers, laments the "unfair, inaccurate and fallacious charges" imputed to high school training in science. He notes that enrollments in engineering began to rise sharply last year and is optimistic about meeting our needs for scientific personnel.

What about the availability of training in scientific fields?

College enrollments are rising sharply. Many institutions are already uncomfortably over-crowded. Many able young people will inevitably be denied entrance to college within the next decade because college facilities have failed to keep pace with an expanding birth rate. This problem will be particularly acute in fields like

science. One publicly-supported Midwestern university now admits only one fifth of those who apply to its school of engineering, and eliminates one half of those before the end of the second year. (However, we must not assume that schools of engineering are synonymous with training in fundamental science. As Knapp and Goodrich point out in The Origin of American Scientists. there is no evidence that engineering schools have produced an appreciable number of fundamental scientists. The small liberal arts institutions, with their strong commitment to general education, are much more productive of fundamental scientists than most engineering institutions which appear to be preoccupied with limited vocational training.)

Despite the shortage in science facilities and faculties, many institutions of higher education have demonstrated a remarkable ability to expand their capacities wherever and whenever necessary. But if we do not expand this capacity more rapidly, many potential college youth will be diverted to fields other than science or turned away from college altogether.

What are the financial rewards in scientific work?

This is difficult to assess for several reasons. Such data as are available are neither as definitive or as comprehensive as one might like, and comparisons of salaries among various occupations are hazardous anyway. However, there is reason to believe that the average starting salaries for both college men and college women are higher in scientific fields than in other fields. The average monthly starting salary anticipated for college graduates in engineering in June, 1957 is \$433 as compared to \$401 for all other fields.

The Northwestern University report showed that many companies (more than half in engineering) reported that they would have to raise their starting salaries over those planned in 1956 in order to attract a sufficient number of college graduates in 1957. However, the report also notes that the gain in salaries in engineering over the past ten years (40.4 percent) has been substantially less than the gain in salaries in business and industry in general (60.7 percent).

What interests and abilities should one have to succeed in scientific endeavors?

The fields of science range all the way from aeronautical engineering to zoology, suggesting wide variations of interests and skills among the occupational fields therein. However, several general guides can be established. Certainly one should possess superior intellectual capacity. (College students majoring in the physical sciences and engineering top all other fields in intelligence.) One should demonstrate superior

achievement in mathematics and science in high school. A potential scientist should respect and enjoy the scientific methods of inquiry. Skill in the use of ideas and symbols is important. One should like experimental and problem-solving types of work.

Devotion to accuracy and detailed work will help. Contrary to popular belief, the scientist should be able to work well with others. Interestingly enough, many of the above criteria apply also to work in the social sciences as well as the physical sciences.

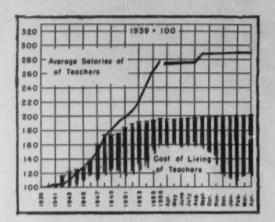
What degree of job satisfaction is one likely to enjoy in scientific work?

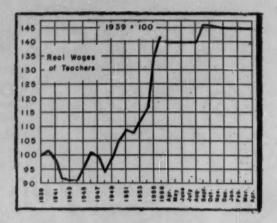
Again the wide variation of jobs in science makes generalizations difficult. However, several unique characteristics of scientific occupations merit consideration. First, it has been said that one of the world's great practicing brotherhoods is that of the scientists. The relative absence of prejudice in science often attracts those who might be handicapped in other pursuits. Great scientists, like Fermi, Einstein, Bohrs and Carver, are honored for their contribution without regard for their race, national background or religion. Not so in all other walks of life.

Second, the opportunity for individuals to undertake creative work and experimentation in the physical sciences, while less than in the preatomic age, is still attractive. Other sources of job satisfaction in scientific work could be cited.

On the other hand, certain limitations impinge upon job satisfaction from some scientific work. One such limitation is especially noteworthy. A vast number of the nation's scientists are employed in projects related to the national defense effort. Here the traditional freedom of inquiry and communication meets head on with federal security regulation. Even in peacetime, security measures impede the interchange of scientific information, restrict the movement of scientific workers and bring under public scrutiny such spurious concerns as Oppenheimer's "degree of enthusiasm" for the H-bomb project.

These, then, are some of the questions that must be considered in determining whether one should encourage his child to become a scientist. However, it is doubtful if a parent should "encourage" his child in any particular occupational pursuit. Instead, he should help his child to acquire vocational information, develop a sense of social responsibility, acquire a variety of skills and interests, assess them carefully in the light of job specifications, capitalize fully upon the vocational guidance facilities of his school, provide as many exploratory experiences as possible into several fields, and stimulate his conscious and continued consideration of this problem. This is the most appropriate encouragement a parent can provide.





Teachers' Salaries and the Cost of Living

by HAROLD F. CLARK

Economic Analyst,

Teachers College, Columbia University

he index of the real wages of teachers continues to decline very slowly. In April, the index of real wages was 144.7 (1939=100). The March figure was 144.8.

This decline can be traced to the very slow but still persistent rise in the cost of living. Although price increases on most commodities have slackened almost to a halt, the cost of most services is still rising. Thus, the net result is a further rise in the cost of living which, small as it is, might make the already difficult task of obtaining competent teachers even more difficult.

How much support for education?

Any really adequate increase in teachers' salaries means the introduction of new factors into the picture. If the public only faced the problem of increasing teachers' salaries, the matter would be fairly simple. However, a hundred other agencies (hospitals, road construction and social welfare groups) in addition to the schools are asking for taxpayers' money, and are asking for more private support from the individual as well.

The schools are doing fairly well in their campaign to obtain their fraction of additional tax support. But they must advance some new argument if they are to get more money.

Perhaps the schools can follow the example of business which has increased operation efficiency, thus reducing the unit cost of its activity and giving the consumer more for the same amount of money.

In education, we are faced with the problem of how to provide a great deal more education for a larger number of people with whatever monetary increase the public can be persuaded to provide. All this will be taking place during a period when teachers will be pressing demands for salary increases (and probably having some measure of success).

It is easy enough to state that the schools should increase their efficiency, but it is a very difficult matter when it comes to presenting proposals that are acceptable to a substantial number of school people.

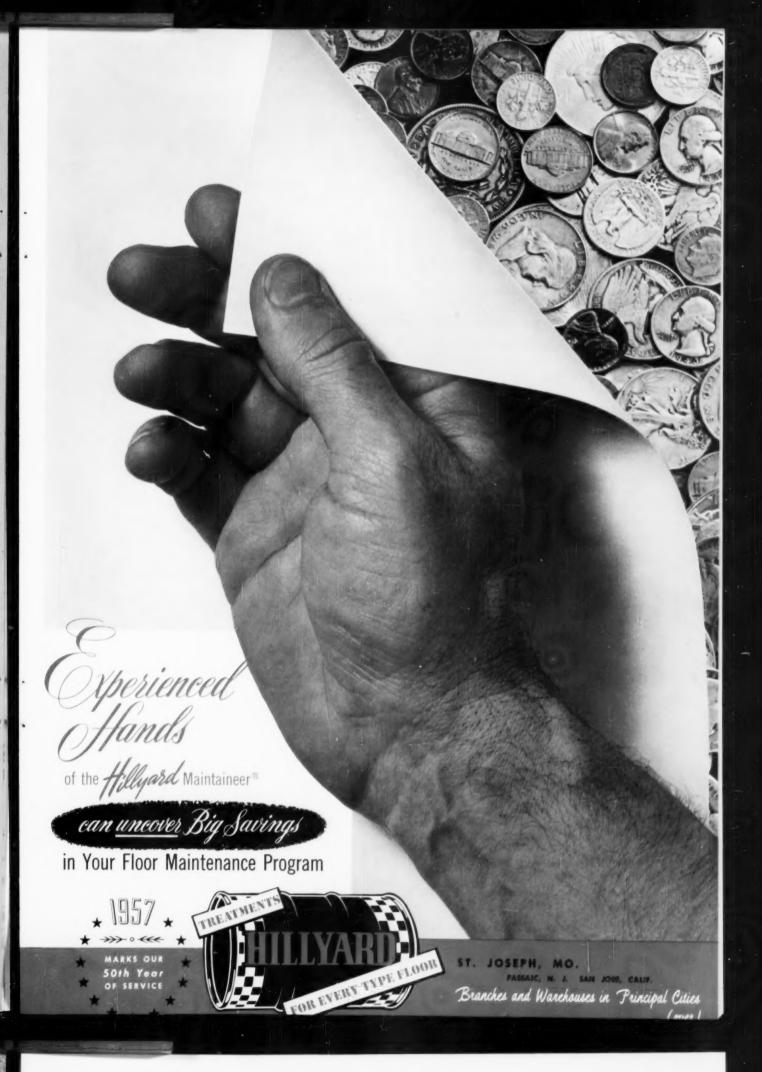
However, if school administrators, teachers, citizen groups and research groups would all decide to look for more efficient ways of operation, many improvements would probably be discovered. Some of the ideas already advanced in this direction might possibly be leads worthy of further thought.

There are many exponents of the idea that most people, if given the proper guidance, could carry on much more of their own education.

There are others who feel that utilizing the many new learning materials (the visual aids—motion pictures, film strips, television) would get far more accomplished, and would permit higher teacher salaries. Some suggestions have even gone further—why not try to record many of the school materials on tape so that the children could get answers to many of their questions themselves without depending on teachers as the sole source?

The point of this discussion is not so much whether any of the suggestions is important or even valid, but whether and how the schools can find ways to improve their processes.

To answer those few who fear that new educational methods and techniques will endanger the relationship between the student and the teacher, let it be remembered that books were introduced in the first place to enable the teacher to do a better job. Again, the new devices would have the same goal.





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PAMPHLETS OF INTEREST

Student Personnel Services

Student Personnel Services in Japan by Wesley P. Lloyd and others tells of a workshop designed to help educators help their students which was held in Japan in 1955. The project was co-sponsored by three Japanese educational groups and by the American Council on Education and was made possible through Rockefeller Foundation funds. Problems peculiar to Japan. organization, administration, training of staff, progress and problems of the project are all part of the account. Published by the American Council on Education, 1785 Massachusetts Avenue, N. W., Washington, D. C., 111 pp.

Student Personnel Services in Universities of the World by Wesley P. Lloyd reports on conferences with educators in 23 countries on ways of improving non-academic services to students. Published by the American Personnel and Guidance Association, 1534 "O" Street, N. W., Washington, D. C., 50 pp., \$1.00.

Course Offerings in Guidance and Student Personnel Work Summer 1957 and Academic Year 1957-58. Compiled by Roland G. Ross (Circular No. 503) lists institutions with a graduate curriculum, workshops and conferences in the guidance and student personnel field. Also summarized are lists of degrees awarded and enrollment figures for these programs. Published by the U. S. Department of Health, Education and Welfare, 93 pp.1

Desegregation

The St. Louis Story: A Study of Desegregation by Bonita H. Valien describes the cooperative planning of St. Louis social institutions and agencies in preparation for the Supreme Court's decision on desegregation. This preplanning helped translate democratic principles into action. Published by the Anti-Defamation League of B'nai B'rith, New York City, 72 pp., 35¢.

³Office of Education pamphlets are for sale by Supt. of Documents, Government Printing Office, Washington 25, D. C.





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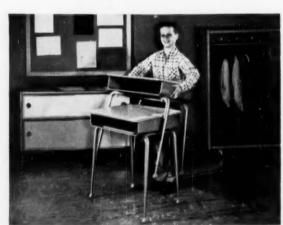


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New, improved Universal calculator shows how to plan maximum balcony seating with minimum ceiling height and establish ideal sight line; enables you to reduce total gymnasium cubage ... make big savings on building and heating costs

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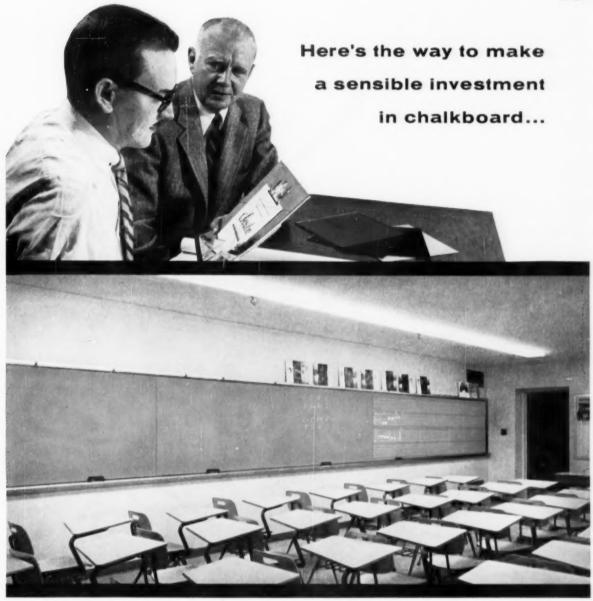
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Look for the 5 features that make sense with architects, contractors and school officials alike and note that Scribo Chalkboard has them

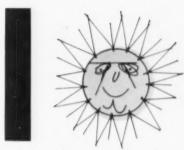
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KAWNEER UNIT WALL-Madonna High School, Chicago, Illinois. C. I. Krajewski, Architect-Engineer.



KAWNEER K-LOUVER—Rowland Union School, Puente, California. Lee B. Kline, A.I.A., Foster Simpson, Illuminating Engineer.



KAWNEER CANOPY—Crockett Junior High School, Irving, Texas. Wyatt-Hedrick, Architects.

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This standardized exterior wall system offers the built-in versatility so necessary in school construction. Wall modules are available in a range of heights and widths . . . fixed or operating sash can be provided . . . insulated panels can be finished in a choice of colored porcelain enamel or alumilited aluminum . . . flush or glazed doors are available. This flexible system is engineered to provide unusual weathering features to resist water and air infiltration. Investigate—you'll find the clean, contemporary design of Kawneer Unit Wall an economical answer to school building problems.

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Direct sun light, reflected glare and intense sun heat sap student and teacher interest and initiative. Effective control of all these elements is easily achieved through Kawneer K-Louver applications regardless of climate characteristics, building orientation or building size or design. Open louver design allows natural air circulation . . . eliminates heat pockets. Concave-convex louver shape diffuses harsh sun rays . . . provides soft, uniform light throughout the room. Available in fixed or operating form for vertical or horizontal applications that meet any sun control requirement.

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Year 'round light and weather control is a simple exercise for Kawneer Canopy. Bus loading points, entranceways and walkways between school buildings can be effectively sheltered regardless of climate demands. Open overlap of Kawneer's distinctive "W" shaped sections allows diffused light to filter through, but provides positive protection against wind, rain and snow. Range of widths offers enough flexibility to meet most sheltering requirements.





Sylvania Eye-Rest Green Scott Fixture makes



Principal Leo Poulos (l.) and School Board President H. L. Niederauer compare the Scott with 3-year-old lighting . . . find the Scott's footcandle levels far greater—and brightness contrasts at a minimum.

The magic of color engineering has gone to work in the modern Blauvelt, N. Y., School. Colorful new classrooms help motivate students to enjoy their schoolwork. Sylvania's Scott fixture, with translucent eye-rest green louvers, enhances the various color schemes with the latest in classroom lighting.

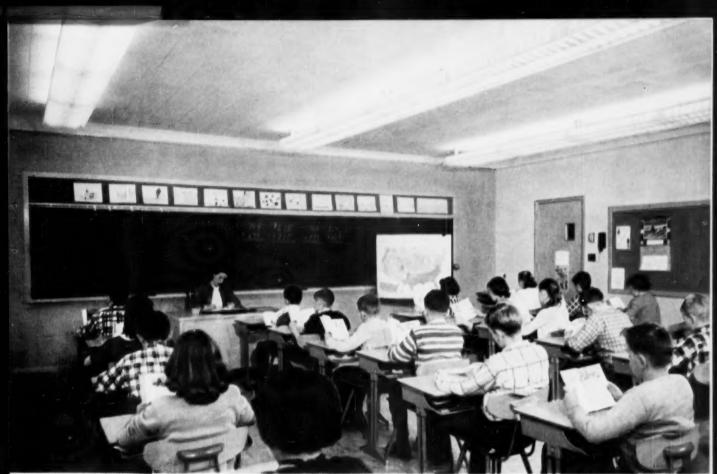
The Scott's eye-rest green plastic adds a new lighting element—cool chromatic eye comfort. It blends well with vari-colored pastel interiors . . . pinks, blues, yellows and tans. The whole effect gives students better seeing conditions in pleasant, work-inspiring surroundings.

The Scott provides extremely high illumination efficiency. With its translucent louver, it softens overhead contrasts, and shields young eyes from direct lamp glare.

Maintenance supervisor R. Palin likes the Scott's one-man maintenance features. Four-foot shields are lightweight...swung down easily for lamp changes...removed quickly for cleaning. The latest and the right classroom lighting, with Sylvania's Scott, makes big differences here . . . in seeing conditions, appearance, and lighting economy over the long and short haul. It can make the same big differences in your next remodeling job, new wing, or new building. Talk to your Sylvania Fixture Specialist for complete lighting information. And write today for our FREE information folder on lighting with the sensational Scott . . . for schools.

SYLVANIA ELECTRIC PRODUCTS INC. Dept. F11, Lighting Division—Fixtures One 48th Street, Wheeling, W. Va.





New life in lighting and color! Sylvania's Scott fixture in eyerest green shows off this new pastel tan classroom in its best light.

color-engineered classrooms come alive



In pastel pink rooms, the Scott's eyerest green color complements color schemes of walls and furniture.



In pastel yellow rooms, the fixture's green tint pleasantly accents the full richness of room color.



In pastel blue rooms, the green Scott adds a new kind of chromatic coolness to room décor.

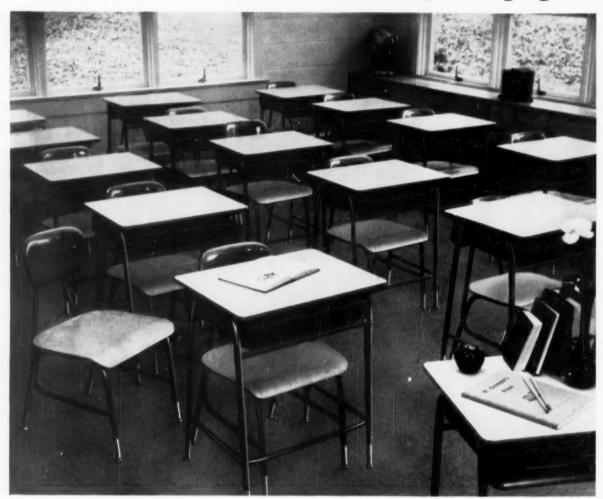
The Scott—close up. Fixture offers high efficiency, finest shielding, new light-green tinted shielding for classroom lighting.



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Brighter classrooms mean brighter pupils!



Choose Cheerful Samsonite Classroom Furniture

Because the proper use of color improves student work attitudes, many of America's leading educators and psychologists prefer Samsonite Classroom Furniture. Samsonite brings a classroom out of the "dark ages." Here are furniture colors with life and cheer which blend beautifully with wall colors-all as a result of an extensive survey on school color. For furniture that helps pupils function, nothing can compare with Samsonite!

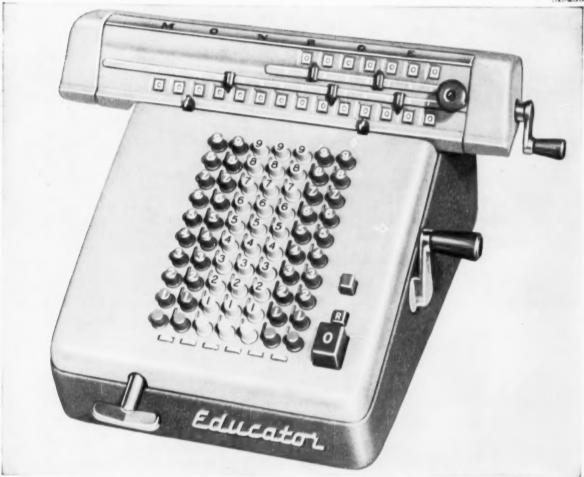
But Samsonite Classroom Furniture goes even further than this. It's remarkably comfortable-designed with compoundcurved backs and special seats that aid proper posture and reduce restlessness. It's light and mobile-fits any ideas you may have. And it's more economical because it lasts longer. Mischief-proof, scuff-proof, mop-proof, Samsonite makes your budget go further than ever before! Write today for free color-catalogue!



Jane Henderson, Headmistress, Lower School, St. Christopher's School, Richmond, Va., says, "We selected Samsonite Classroom Furniture because the design and construction enable the pupils to sit comfortably and maintain proper positions without effort!"

Samsonite strongest lasts longest

Shwayder Bros., Inc., Classroom Furniture Division, Dept. SE-6, Detroit 29. Mich. Also makers of famous Samsonite Luggage, Institutional Seating and Card Tables and Chairs for the Home. Merchandise available in Canada from Samsonite of Conodo Ltd., Queens Highway, Eost, Stratford, Ontario



Elementary School Students GAIN MORE IN REASONING ABILITY

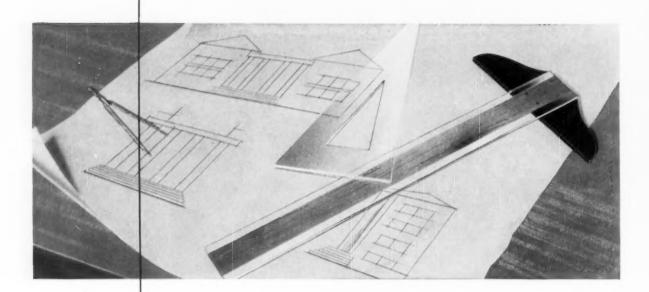
WITH THE MONROE EDUCATOR as a visual aid in the teaching of arithmetic, elementary school children actually gained more in reasoning ability. This conclusion is based upon the results of recent scientifically controlled experiments. At the same time, use of the Educator in classroom instruction heightened the interest of both children and teachers, making learning—and teaching—fun.

Ask for your free copy of the report by Dr. Howard F. Fehr, Head of the Department of the Teaching of Mathematics, Teachers College, Columbia University, "Can Children Really Enjoy Arithmetic?" In addition, a complete line of supplementary educational materials, courses of machine instruction and operation, as well as teaching aids

are also available at your nearest Monroe office.

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Took at your job as it really is!

LET'S ASSUME you work for a living! Let's be still more daring and assume that you work as a principal or superintendent of schools. If this second assumption is true, then we can move rapidly to a point of agreement-namely, that you have a pretty good idea about what your job is like. You've got it figured out. You experience it just about every day in the week. No one knows better than we do just what it takes to be a good principal in our schools or a good superintendent in our systems. And we know that we know. After all we've lasted eleven years and people still like us!

Yes, if we are successful school administrators, we doubtlessly have a clear conception of what our jobs are-what they are like in every detail. In fact, we'd be abnormal, (not enough to be famous) and unsuccessful, too, without a picture of our principalship or superintendency before our mind's eye. It is a picture that is usually pretty clear. This picture of our job has only been out of focus maybe a half-dozen times during our career. We can probably recall some school issues that caused this picture to "fade" or to "slide off the frame" quicker than a cantankerous TV set. We remember these occasions because we felt lost and insecure without a picture-at

least, without a picture that we could trust—before us.

During the past few years, psychologists and educators have produced some research results that tell us more about ourselves, how we look at things, and what this "picture" that we trust so completely means to us. What they have to say throws a great deal of light on the subject.

The psychology of job perception

Some of the major psychological concepts that show the importance of job perception can be stated simply. Obviously, their full import and far-reaching implications must be studied in a more complete presentation. Let us review two or three admittedly over-simplified concepts as guides in this discussion.

All of us have formulated some notions about ourselves. We know that we have shortcomings even though we won't admit many of them. We have formulated a concept about our environment. We accept other people and their values as a part of it. We assign characteristics to them, judge them by our standards, build up attitudes of acceptance or rejection toward them.

Over the years we have become

Dr. Merrill is associate professor of education at the Alabama Polytechnic Institute, Auburn, Alabama.

¹Donald Snygg and Arthur W. Combs, Individual Behavior, New York: Harper and Brothers Publishers, 1949.

by E. C. MERRILL

better and better perceivers. We trust our perceptions—these pictures we construct for ourselves. Occasionally, we miss, but we hastily reconstruct, re-focus, re-draw them.

A second point that psychology suggests to us is that we act, quite confidently, on the basis of our perceptions. If we perceive that a person does not like us, we may avoid meeting him. If we think a person is argumentative, we weigh our words in his presence. When we sense that a group expects a particular response from us, we try to oblige. In each instance our perceptions could be in grievous error; nevertheless, we behave in a manner that is consistent with them.



We trust, so the psychologists say, those perceptions that we have held longest and those that relate most consistently to each other. We cannot endure incompatible perceptions. We'll make them agree somehow even if we have to be unrealistic.

From these brief observations we develop useful insights about job perceptions: we hold perceptions about ourselves, our friends, our job. We even perceive how they see us and what they expect from us. We construct a whole picture and adjust the focus month after month, year after year. So, you see, we're right. We do see our jobs clearly—in bold relief! But there is still a question: Just what do we see when we look at school administration? Let's look at the different ways we see our jobs.

Traditions: Bless 'em!

Some of us see our jobs through the eyes of our predecessor. He was a man who took us into his confidence and described our job to us. During this period of indoctrination (some people call it "grooming,") many phrases molded our thoughts: "the people here have always wanted a curriculum that strongly reflects liberal arts . . ." "as superintendent you're not supposed to get into community issues, even when they affect education. . ."

And so our job as superintendent became clearer and clearer to us. We moved into the office and into a professional mansion that tradition built (gingerbread trim and all). We've been there ever since. We know how to act. We feel secure and we are secure because we know and follow the dictates of tradition. This, to us, is the right perception of our job. It works. It's just as right as rain!

Problems and more problems

Not all of us have had the kind of introduction to our jobs that was described above. Some of us may have received a telephone call one night saying the job was ours. We appeared on the appointed date and found things in a mess. All of our long-dreamed of plans and projects were put aside. We just tackled one critical problem after another, and they kept on coming. Now the school system is on its feet but we remain trouble-shooters par excellence!

When we get together with other administrators at the schoolmasters' club, we hear ourselves saying, "There's a problem over at the high school . . ."

Yes, when we talk about school administration, we think, live and breathe problems. The most adequate description of our job takes the form of a description of the immediate and long-range problems that must be solved. To us it is the only realistic approach to the superintendency. Sure, we do other things, but all of our energies and activities are directed toward the solution of problems. What's more, we're good at getting problems solved. In fact,



that's the reason we're still in the saddle!

Nail down those jobs and get the facts!

There are those among us who had considerable training in the sciences prior to entering school administration. Maybe we taught science for six or seven years at the beginning



of our careers. We liked science then and still do. Science developed an analytical ability in us and taught us how to organize and categorize. Furthermore, we are positive that it has helped us systematize administration.

We, those of us with this science background, go into our offices each morning and take a look at the problems, activities, and responsibilities that confront us. We jell them into neat jobs and set them down in black and white. (Thus, our picture of administration becomes an ordered one. We see to that.) Then we take up the jobs one by one: some we handle ourselves with dispatch (letters, salesmen, and so on), others we refer to our administrative assistant (who, unfortunately, doesn't have a science background) or to a secretary (questionnaires, and items to be filed), others we tag for school board action, and still others, we defer (for reasons that we don't admit even to ourselves, much less divulge to others).

We school administrators with the science backgrounds have at least one other characteristic that must be mentioned. We have a reverence for facts. Facts fit well into a logical, job-centered approach to administration. Facts are the great common denominator among people; no one can argue with facts (and we'd never admit that the real meaning of facts is the meaning people ascribe to them). If one wants to be an ad-

ministrator, he must know how to dig out the facts.

Thus, school administration is a process of ordering many kinds of things into jobs, getting the facts, and then "taking care" of them. We would unhesitatingly recommend this approach to school administration. It assures that things get done. It eliminates confusion. It is reliable (based on facts). We always know just where we stand and what to do.

You don't do it-You get it done!

As a new principal, we were very conscientious. We felt responsible for the school and were responsible for it. We were energetic. We wanted to set an example. We tried to do it all: we helped sell tickets at games, taught a class now and then, accepted all speaking requests, helped manage the cafeteria, virtually kept all office records singlehanded, disciplined anyone who seemed to need it.

As a result, we had that which we surely thought was a heart attack, but which turned out to be a case of nervous exhaustion. Yes, that's what it took to make us look at our administration behavior. We also got curious, began to investigate how business executives worked, and took some courses in school administration.

Now we hold a different idea about school administration. We don't try to do everything—we know we can't. We know that good school adminis-



tration is the process of getting many things done—but not by doing them ourselves. Our picture of administration can best be described by stating the functions that we should perform.

Now we spend our time planning with staff members what is to be done. We help initiate activities. We help people get organized so that they can work effectively. We coordinate the many activities that are being carried on. We are sure that people are informed about all of the events and activities concerning the school. These and several other such functions, we are convinced, really represent the best way to look at school administration. We know it works. More things get done now than when we tried to do all of them ourselves. In addition, this approach virtually saved our lives!



There's sure to be a pattern

Perhaps a few of us would say that none of the foregoing descriptions of school administration is adequate. We see our job, not as any one of these previously described approaches, but as parts of two or three of them arranged in an "administrative pattern".

In administering our school system, we may be centrally concerned with performing specific functions (planning, organizing, and coordinating); we may, however, be equally concerned about exercising these functions in reference to the many tasks (preparing the budget, employing teachers, improving the curriculum) that have to be done. It is likewise possible that, as these functions are performed in reference to administrative tasks, we search for problems and barriers to our progress. In other words, we're ready for trouble-shooting (or problemsolving). This, we say to ourselves, is more like it. This is a perspective of administration that is complete and that shows important relationships.

Obviously, we could construct several such "patterns of school administration." How do we get these patterns—these configurations—these projections of our jobs? We grow into them. We get them from experience, from chance happenings.



from the advice of elder statesmen, from interactions with our colleagues, from institutional preparation programs. And what do they represent? They are simply our perceptions of our jobs—how we see them, how we react and how we act!

A personal matter—with professional implications

Each of the descriptions of school administration presented here (somewhat facetiously, at times) reveals some common perceptions of school administration and suggests how they came to be. Obviously, these perceptions are extremely personal even though they are about our jobs. You don't have to admit them verbally to anyone, but very often your actions portray-even more vividly than words-how you look at things. Thus, one's perception of his job and how he arrived at this perception have tremendous professional implications. Let's ask some brutally frank questions.

If job perception is one significant key to successful school administration, do we face an unfortunate professional paradox, namely-does a greater degree of confidence make us more inflexible and eventually blind us to more realistic and useful perceptions of our jobs? (Yet, we can't be really successful without confidence in ourselves and our perceptions.) Why can't we get together on what principalship and the superintendency really are? Why haven't we some techniques that will help arrive at a better job perspective? Why aren't more in-service programs concerned with this? How can institutions of higher learning assist us? Why doesn't research tell us more? What leads can we get from the modern theories of school administration that are emerging?

It's time to stop writing and find out all the answers!

Countless numbers of persons rightfully argue that there is a need for increasing and more competent personnel to handle the problems of modern society. Educators desire more teachers and schools, the medical profession points to the lack of physicians, still others demand more police officers, judges, and social workers. There are few who doubt that society has a need for these people.

The writer however, feels that there is a basic danger in professionalism which deserves attention.

During a recent study of community participation in a number of public school systems, we were impressed by a response to professionalization in education that we had

Are We Over-Dependent on SPECIALISTS?

The social merits and dangers of this laissez faire policy with the professional, the specialist, in the driver's seat has aroused interest, concern, and has inspired action

observed in a number of other areas. There has been increasing evidence which demonstrates that many persons feel incompetent to handle those areas which are in the domain of specialized personnel and agencies. This often is a valid and necessary approach since the individual may lack the specialized skills required; even so, this type of feeling has widespread consequences.

The physician, for example, is often regarded as an autonomous figure in the area of health. Certainly he is trained to treat many health problems, and should do so. However, one may seriously question the wisdom of the person who visits the doctor with a common case of sniffles simply because he feels incapable of handling this problem himself. There are persons who even refuse to take aspirins for common headaches because they feel that matters of health are completely removed from

their sphere of competence and duty.

In formal education, we have often encountered parents who explain their seeming disinterest in the education of their children by claiming that their child's teacher is trained to handle the techniques and content of education while they are not. Many persons express no active interest in the discipline that their children are exposed to in school because they have assigned this area of activity to the teacher.

Thus the school is looked upon as an institution which is fully capable of controlling its own destiny, and the destiny of those who participate in it, in the light of the best educational theory and practice.

The schools, of course, do much to encourage their own autonomy. They may instruct parents not to interfere with their child's homework, or to refrain from consciously adding to the school's program.

Parents who visit schools are occasionally greeted with complicated explanations of pedagogical technique, and are almost always told that while the school may follow what may impress parents as mysterious ways, "it knows what it is doing." Consequently, the lay person often develops a feeling of ignorance and helplessness in this area. This feeling may be manifested by seeming indifference to the educational institution. The lay person just does not see where he can contribute in any meaningful way and gives over his autonomy to the schools.

While the school often contributes to this kind of behavior, we must recognize, too, that many persons are only too happy to relinquish their active interests in education to an agency, competent to cope with this area. Often, these are persons who have little understanding of the educational processes and feel that their energies are being drained off in pursuit of some occupational task. They are doing their job; it's up to someone else to do some other job, i.e., to educate their children. They expect, and want to see, some fairly autonomous educational agency dealing with education. In part, this all reflects a general cultural value that this is the age of specialization and

by NATHANIEL SIEGEL

Dr. Siegel is a member of the department of sociology at Columbia University, New York.

that everyone has his job to do.

Our focus here is primarily on the school, however, it is probably wise to indicate that the school is relatively close to most people today. At present, the majority of persons are exposed to high school educations and consequently have some familiarity with the educational process. But there are cases where the family knows very little about a certain area.

Let us consider, for example, what occurs when there is a mental illness or a behavior problem in a family. An officially sanctioned person or agency enters the situation; and the deviant person seems to come under the jurisdiction of the specialized group only. The family is often caught up in a web of professional diagnosis, recommendations, and treatment in an area in which it has little insight or information, It is given to understand that people who know what they are doing are handling the situation in the best possible way. Here, as in the previous educational examples, the family lapses into a feeling of resignation and leaves everything up to the skill and power of the appropriate person or agency.

We have observed, therefore, that there is a definite tendency by many people to give up their controls and interests and to become somewhat passive and yielding in areas where there are recognized agencies at work. To a large extent, this is a consequence of our urban industrialized society where specialized institutions are required.

This does not, however, detract from the dangers which are inherent in such a system. Public apathy is an unhealthy situation in a democratic society. One may expect, too, that if present trends continue and specialized personnel and agencies continue to expand, increasing use will be made of these facilities. These agencies both satisfy and create demands.

Certainly the professions have begun to take notice of this problem. Educators have probably been the leaders in encouraging community participation in school affairs. Too often, however, this encouragement

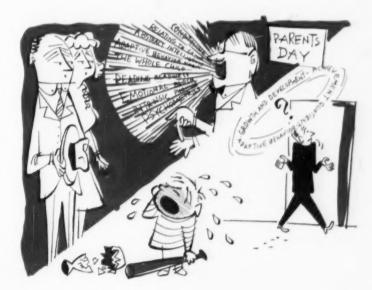


has taken the basic form of saying, "We know what we are doing but we need your help to implement our program." True participation is not encouraged or achieved in this manner.

The writer has met parents who feel that their participation in school affairs is limited to such things as badgering the police department to put in more traffic lights in the school's area, or sponsoring garden exhibits, etc.

When people begin to view themselves in this peripheral capacity, their interest in school activities tends to wane. We have found that the best situation is one in which the educator takes the lead in educational matters but, where lay persons feel that they are participating in meaningful ways.

Much still needs to be done to develop techniques that will bring about the most effective cooperation between educational and professional agencies and the community at large. Efforts such as citizen committees, "Area Projects," PTA organizations, and mental hygiene groups should be encouraged. In too many ways, have these groups been neglected areas of interest by professional agencies. One may hope that more intensive efforts to stimulate recognition and responsibility will be directed toward the community and its burgeoning groups in the future.



They catch the parents early . . .

Pre-Kindergarten Workshop

by CARL HASSEL

Mr. Hassel is associate superintendent for instruction with the Liverpool, New York, Central Schools. A suburb of Syracuse, Liverpool has a current enrollment of 3450 children which promises to double in the next five

EAVING the insulated security of the home and entering kindergarten is a monumental step for 5-year-olds. At Liverpool we have developed a program of orientation-for the youngsters and, more important, for their parents-to assure that the child's first school experience will be a pleasant one.

A poor kindergarten experience, we had found, can result in a poor educational experience for the child throughout his school years. Moreover, many parents didn't understand the purposes and program of the kindergarten; indeed, some doubted the value of the program. All needed to know how they could help the school induct their youngsters into this new adventure.

Our program to help both parents

These children have just had a preview of kindergarten which they'll begin in the fall.

and children get ready for kindergarten is two-fold: workshops for the parents and sample kindergarten days for their youngsters; and visits of kindergarten teachers to the homes of their prospective pupils.

In February, three Friday-morning meetings were held under the leadership of the Salt City elementary school's guidance counselor. The PTA co-sponsored the series of meetings. Here the pre - kindergarten children met in carefully controlled groups of 20 with a kindergarten teacher in charge of each group. (The teachers were relieved of their regular assignments during this period.)

The children went through the routine of a regular kindergarten day, including the mid-morning lunch. Although there were some tears at the first parting from Mother, by the third session most were eager to attend. It will be interesting to see whether or not there are fewer tears this fall as a result.

While the youngsters got acquainted with each other in this kindergarten preview, their parents met for their workshops. The mornings started with a get-acquainted coffee

Then a discussion period got underway and the parents considered these topics: the purposes of kindergarten activities; how parents can help a child make a good start in school-and particularly a good start in reading (here they discussed the meaning of "reading readiness"); school policies on parentteacher conferences, reporting and bus safety; and the health program, including vaccinations, innoculations and clinic services.

Each discussion was preceded by a film which served as a common thinking point for the parents (one particularly helpful film was "The Frustrating Fours and Fascinating Fives"). Each session allowed ample time for questions and answers. A question box was set up so that parents could leave queries for the following session.

The staff participants included the Salt City principal, guidance counselor and health nurse-teacher; a

kindergarten teacher who discussed the typical day; the district curriculum coordinator who discussed the kindergarten program; the community relations director who considered school policies; and the principal of another elementary school who discussed characteristics of the kindergarten-age child.

The cost of the film rental was borne by the school district. The PTA paid for the coffee hours and for the kindergarten introduction booklets, "Happy Journey." PTA volunteers served coffee, helped the kindergarten teachers with their groups and organized car pools.

During the summer, the kindergarten teachers of the Liverpool schools will be employed for two weeks to visit in the homes of the children who will be in their classes this coming year. Their salary for this service is an additional halfmonth's pay of their yearly contract.

The purpose of these visitations is to familiarize each teacher with the home and allow her to meet and talk with both the parents and the child. The Kindergarten Handbook, developed by the staff, will be distributed at this time. These visits will be scheduled any time during the summer to suit the teacher's and parents' convenience.

On evaluation, our pre-kindergarten workshop and visitation program was shown to produce these benefits to the school and parents: the children (120 participated) will be eager for, or at least unfearful of, school; the parents (also 120) now know most of the answers and will not be telephoning anxious questions next fall: the parents know the school's open-door policy, they will be more ready for parent-teacher conferences and will work more effectively with teachers; and, of course, the parents now know why kindergarten is a "must" in the Liverpool schools,

The PTA showed a gain, too, in an eager, friendly body of potential members.

By this early work with the parents, our program has contributed much to a better understanding of the function and processes of the kindergarten program.



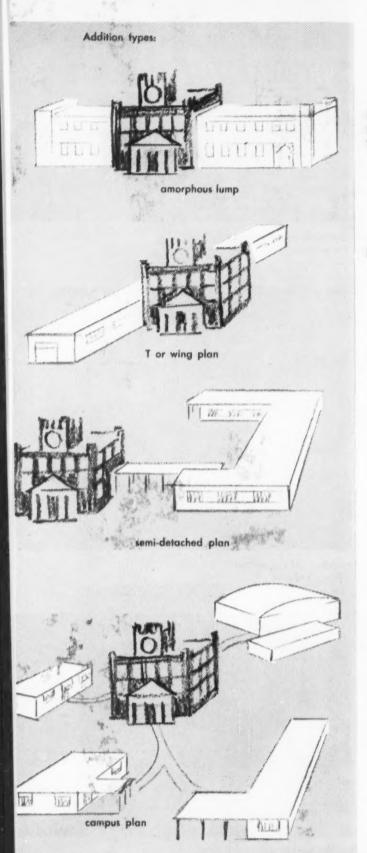
Before the workshop gets underway, mothers get acquainted over the coffee cup, courtesy the PTA.



Pre-kindergarteners meanwhile get acquainted with each other and their to-be teacher, and get the feel of school.



Parents ask questions at the workshop; fewer will be anxiously phoning in the fall.



Enrollment on the increase?
School overcrowded? Facilities obsolete?
Then here are tips on . . .

How to Plan an

by LESTER W. SMITH

Mr. Smith is a partner in the firm of Sherwood, Mills and Smith, architects of Stamford, Connecticut.

O NE OF THE MOST difficult questions board members are asking themselves these days, as they accept cigars from proud new fathers, is "Shall we add to our present schools or build a new one?"

Too often the decision to "add on" is considered simply as a means of squeezing in more children (a pressing need undoubtedly, but not the only thing to be considered). Many of the schools that have been used for decades were designed for a program that no longer exists—"structurally sound but educationally obsolete," as someone has put it. But sometimes an addition can rescue an aging building from complete obsolescence by providing needed facilities and correcting some of the deficiencies of the original plan.

The best time to correct past mistakes in a building is when a new addition is being planned; therefore, a careful study of the existing building and its problems will repay itself in time and effort. Cost-wise, too, it is the perfect time. Listed above are some pertinent questions to ask about

ADDITION to Your School

First, ask these questions about your present school:

- 1. Are there adequate storage areas, other than in a remote attic or
- 2. Does the auditorium or assembly room have a suitable stage for varied activities, or is the stage merely an enlarged podium?
- 3. Are the kitchen facilities sufficient to provide a good hot lunch program? Is there storage space for foods that are available from the Federal Government?
- 4. Is there a satisfactory room for health services? A library? A room for remedial teaching?
- 5. Is the light on the pupils' dosks sufficient to meet present-day
- 6. Is there an adequate office for a secretary-receptionist? And a waiting room convenient to this office and the principal's office?
- 7. Has the custodian a light, specious place to unpack supplies, mend furniture, paint, carpenter and keep his tools in order?
- 8. Is there enough out-of-door space for the children to play—and not only the children now in school but the children which a new addition would house?
- 9. Are parked cars and buses causing a traffic problem in front of the school? Or causing a hazard to the children?

your existing school when you contemplate adding to it.

If the decision is to add, the following suggestions should help you avoid the usual traps and pitfalls that accompany this area of school planning:

1. Get the best professional advice early. Too often the decision to build an addition is made without the advice of an educational advisor or consultant and even before an architect is hired. Thus the board does not get the benefit of several different ideas, clearly presented in graphic form for comparison.

If selected early, the architect can help advise on the adequacy of the site and the need for sub-surface investigations and can provide valuable cost information. If there is an educational consultant, he and the architect will be able to work closely together to determine the best possible building solution.

Keep the building simple. Many of our older school buildings have complicated plans which were tailored to specific, but now out of-date, programs. A simple and flexible design will guarantee an attractive building which will be useful many years from now.

3. Don't add until all possible alternatives are considered. Building an addition that will be overcrowded in three years would be foolish, if a new building would save the complications of future additions and provide for a much longer period of growth. The countryside is dotted with schools that contain additions to additions—the result of myopic planning in most cases.

Be sure that an addition is a permanent solution, not a temporary one, because additions are costlier than new structures on a square-foot or cubic-foot basis.

4. Keep the addition out of the play area. If we build in the play area (often the easiest thing to do) we may be reducing our building's usefulness. We increase the number of children who will need a play area while decreasing the space they will have to play in.

Plan the addition for the parts of

the property that are least suited to play, or consider acquiring more land. Later, when the need for space is painfully apparent, it will be too late. Additions cannot be moved.

5. Get the opinions of teachers as a group. Although the teachers' needs and suggestions should be carefully considered at all times, it is best to hear their counsel in a group rather than individually. Their teaching methods may differ widely, but the added classrooms should be able to fit all teachers and all teaching methods.

Furthermore, a teacher long adjusted to an old structure has had her opportunities limited and hampered by the architecture, and a new type of teaching environment might open up new possibilities which she could not have foreseen.

6. Allot ample time for the preliminary study. The architect's imagination has been trained to contribute much to a successful solution of your school problem. But he needs time to plan. He cannot turn out a preliminary design in a few days or even a couple of weeks. Remember that the length of time he spends does not affect the budget—so get your money's worth! When you give the program to your architect, give it in words, not in sketches. He can do sketches. Avoid fixing the room arrangement until many possibilities have been considered and compared.

7. Don't fall for the stock plan. Old army barracks, quonset huts, prefabs and other slum-like buildings are now a source of irritation to many communities which once felt it necessary to erect them. An attractive school, nicely tailored by an

that could be built for the money. And it will later reflect no credit on the school board responsible for its purchase.

School additions may be classified into four general groups: the amorphous lump; the T or wing plan; the Siamese addition, and the campus plan.

The amorphous lump: This, the most common type of addition, is generally the result of instructions from the school board to extend an existing corridor and add classrooms on both sides. The amorphous lump usually attempts to match the exist-

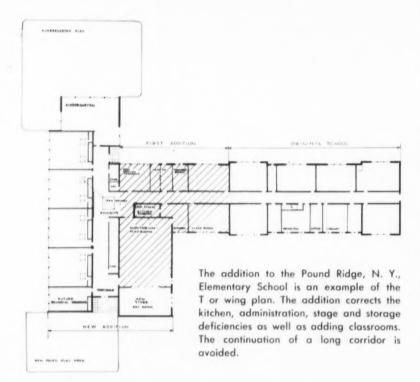
of additions offer far better solutions.

The T or wing plan: This can usually be added in several ways and offers the architect more freedom to select the one which is most efficient in terms of education, structure and utilities. Furthermore, the wing can be built in a more contemporary style without resulting in a clash of architecture.

Some examples are pictured here. In the Pound Ridge School, a T-shaped corridor made an attractive lobby and display center at the heart of the building and did much to alleviate the tunnel effect. In the Horton School, the T-shaped addition gave an opportunity to change the floor levels at the stairs, resulting in a split-level plan with very substantial savings in cost. And a more contemporary and economical style of architecture was used, since the added classrooms did not have to match the existing building style.

The Siamese or semi-detached plan: This is especially advantageous when a relatively large addition is needed to an old building. The slender connection requires little work to be done on the old building and is therefore advantageous to contractors bidding on the job. Furthermore, the old building can eventually be demolished with no damage to the addition. With careful planning the Siamese addition can provide a desirable separation of age groups, and can contain enough additional educational elements to make the entire plant modern and workable.

An example of this type is the addition to the Sharon Center School, which not only provided seven badly needed classrooms but rescued from obsolescence the existing 8-room building. Sharon's new wing also constitutes a handsome community center war memorial containing a large auditorium-playroom with full stage and, at the lower level of the building, complete cafeteria and kitchen facilities. Because of the thin connection between the two buildings, it was possible to build the addition with a minimum of disturbance to the pupils and teachers who were still in the old building. The connection between the two buildings

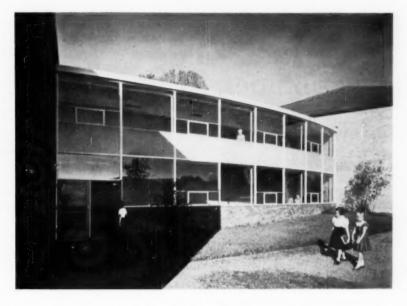


architect for its specific purpose, usually contains inexpensive prefabricated and "stock" materials and equipment. The stock-plan seller offers no magic improvement over this.

A stock plan is just a ready-made blueprint which can be pulled out of a desk drawer at a moment's notice. It represents stock thinking, making no allowance for varying community needs, varying sites, or varying relations of the proposed addition to the existing building.

The stock plan is bound to represent a poor compromise with the best ing structure (resulting in an esthetic monstrosity) and is seldom the most advantageous or economical solution to the problem.

Most of our school corridors are long, narrow tunnels as it is; to extend such a corridor another 50 or 100 feet only compounds the problem of congestion and noise. This kind of addition usually contains nothing but classrooms and corridors and therefore throws the building further out of balance as to lack of space for administration, storage and remedial facilities. The following three types



A curving 2-story corridor connects and yet separates the addition from the old building in the Sharon, Conn., Elementary School—an example of the semi-detached plan. The thin connection allowed the addition to be constructed with little disturbance to the old building, and it provides a well-lit exhibition gallery.

is a dramatic, curving, glass-walled hall which is used as an art gallery.

The campus plan: This type of addition is considered too seldom because of the mistaken notions that children should not have to go outdoors in cold weather and that separate buildings might constitute an administrative difficulty. In use, these apparent disadvantages seem to dwindle, and instead there are outstanding advantages for schools where sufficient land is available. A campus plan will make the school look small and will keep it appropriately child-scaled. A separate, small

building can be built without complications of connecting to another structure—frequently a substantial economy. There is opportunity to provide better heating, ventilation and lighting which might not be considered in an addition unless the entire building were revamped.

With this campus plan, a new and separate pavilion can set a precedent; additional pavilions can then be added at any time without the waste motion of demolition and alteration of antiquated buildings. Private schools and colleges have long realized this advantage and have been able to keep their campuses up to date, even though many of the older structures are 50 to 100 years old.

The addition, regardless of type, can be the result of careful planning and study on the part of the school board with educators and architect; or it can consitute an even greater problem for the community and the children who are to use it in the future.

With care and imagination, an addition can go far beyond the original intention of merely adding to the school's capacity. It can make your school young again!

Another wing plan is this addition to the Horton School, Portchester, N. Y., which utilizes the stair landing levels of the old building. The street level houses a playroom-cafeteria and community facilities as well as kindergarten and primary classrooms. The library connects directly to the stair landing above.



June, 1957

Know Your Responsibilities, Mr. School Board Member

An authority on this most important subject tells us what they are and their social implications

IN A DEMOCRACY the public schools belong to the people. School board members, as the chosen representatives of the people, are responsible for the preservation and the promotion of the public schools in the interests of the people.

In our democracy, public education is the most significant undertaking of government. It is a stupendous undertaking. In our communities we are attempting to educate all the children of all the people—and most of the adults, too. In any locality, public education is one of the largest and most important activities being carried on, whether this activity be public or private.

In the United States at the present time there are approximately 60,000 school districts. These school districts extend over practically every acre of land in our country, and approximately 300,000 school board members guide the destinies of the schools in these districts. The public schools employ more than 1,000,000 teachers and tens of thousands of other employees. They must provide full-time education for approximately 30 million children and youth. The value of school property is around \$20 billion. During the current school year approximately \$10 billion will be spent on public elementary and secondary education-\$7.5 billion for current operation, and \$2.5 billion for school construction.

In the typical community, the board of education manages one of the largest, if not the largest, organized undertakings—in terms of the number of employees, the size of the budget, and the value of the plant—to be found in the community. This undertaking affects, directly or indirectly, practically every man, woman, and child in the community.

It is important for each of us to know what it means to be a good school board member. The ideas presented here may be good, or not so good for any particular person, but each board member must determine what it means to him to be an effective member of a board of education.

The Meaning of School Board Membership

To be a good school board member, there must be:

A deep and abiding faith in the social significance of education.

It means having faith in the power of education to make better men and women and to improve community life. It is no accident that the world's most noted adventure in public education and the world's greatest democracy have developed together. American democracy has established and nurtured the public school and the public schools have provided the soil and climate in which democracy has flowered.

Acceptance of a public trust of the highest order.

This trust should be zealously guarded by every school board member, for it represents the hope which children and youth have for the future, and also guarantees the future welfare of the community.

Representation of all of the people of the local district.

It does not mean representing one's own particular social circle or business associates. Education is a state function, and the board member must therefore represent not only all of the people of a local

by RUSSELL T. GREGG

Dr. Gregg is professor of education at the University of Wisconsin, Madison 6. school district, but also all of the people of the state.

The goal of protecting the schools against any person or minority group which would weaken or destroy them.

This means that a school board member must be courageous in his thinking and acting to safeguard good schools for all children. School board members should accept the responsibility for providing high quality educational opportunity, even in the face of criticism.

Open-mindedness, a desire to rely on facts.

A school board member who relies on facts will not be guided by personal bias or vested interest. He will respect the ideas, suggestions and criticisms of other people. He will be willing to study and deliberate with associates and to consult expert counsel to answer educational questions.

A willingness to devote substantial amounts of time and energy to the public schools.

The school board member must learn more and more about the schools in his district, and about public education in general, if he is to render the best educational leadership possible.

Major Duties of the Board of Education

First and foremost, school board members must know what the legitimate functions of the board of education are. It should be emphasized that the board of education is a governing, a legislative, body. It is not, or should not be, an administrative agency. As a legislative body, the board's major tasks are:

- 1) to formulate policies for governing the schools
- 2) to approve plans for carrying out these established policies
- to approve the workability of the policies and the effectiveness of the plans, and

4) to delegate the responsibility for the administration of these policies and plans to the board's chief executive officer, the superintendent of schools.

These policies help realize the schools' many goals—the general nature of the educational program and services to be provided, the rules and regulations governing personnel, the school facilities to be provided, and the amount of money to be spent. Since the board of education is not an administrative body, it should (1) select a competent chief administrative officer, (2) delegate all administrative responsibilities to him and the staff, and (3) appraise the effectiveness of services rendered.

Effective Procedures for School Boards

To do well its job of policy-making and appraisal, a good board of education, emphasizes the following procedures:

- 1) The board identifies itself closely with the people of the school district. Individually and collectively, board members seek to know the community and to keep in close contact with all of the people. The board looks upon itself not only as an agency for legalizing educational policies and plans but also as the agency through which the educational ideals of the people will become realities.
- 2) The board encourages wide participation of the people in the consideration of educational issues. It feels the need to utilize citizens, members of the professional staff, and outside consultants in reaching decisions about the schools, and thus encourages proposals and criticisms from every source and gives careful attention to them. It helps groups to organize and discuss problems relating to the schools. It invites people to attend board meetings.
- 3) The board projects its purposes and plans well into the future. It will develop long-term programs extending 5, 10, or even 25 years into the future. A board of education must deal primarily in "futures," for the children of today will be the adults of the future. Decisions made today

will set the course of education for many years. With such a situation comes the necessity to project educational policy and plans. This projection demands careful gathering of pertinent facts, forecasting events indicated by the facts, and then making the appropriate decisions to shape the educational future of the schools of the district. Accomplishing this goal effectively often demands courageous action.

- 4) The board puts first things first. It treats matters according to their relative importance to the total educational undertaking. For example, the board may find it necessary to determine the characteristics of a good educational program before it tackles anything else; the business affairs of a school system are, of course, important but they are less important when compared to formulating educational program policy. The board must direct its major attention to the educational services needed, rather than to the dollars expended. It must, of course, make sure that 100 cents of educational return is obtained for every dollar spent; but the quantity and quality of educational opportunity to be provided remains the board's basic con-
- 5) The board differentiates between its own functions and those of the superintendent of schools. Although the board decides the policies, general plans, rules and regulations for the school system, it does not attempt to administer these policies, plans, and regulations. The administration responsibility is delegated to the superintendent of schools. The board does, however, have the important job of appraising the effectiveness of the work of the professional employees to whom it delegates responsibilities.

Being a school board member means enjoying a position of leadership in a public undertaking of paramount importance. It is a position of responsibility that affects the lives of many people. It is hoped that the few suggestions presented here will help lead the way to a smoother, easier journey to the realization of every board member's goal.

Special services: speech therapy

A Countywide Plan for Shared Program, Pooled Budget

How a rural New York county provides a wealth of special services and vocational opportunities at low cost to each school

by CORNELIA WARRINER

Mrs. Warriner is a free-lance writer and an active participant in schoolcommunity activities in New City, Rockland County, New York.

Vocational opportunities: Radio & television

VERY SCHOOL SYSTEM, no matter its size, could profitably use educational specialists (in reading, speech, music, guidance, health) and a broad program of vocational education. But a district with just a few hundred students can hardly afford these services. Are these small-town youngsters to be denied big-city advan-

Not so the 20,000 pupils in Rockland County, New York. The 26 school districts in this rural-suburban triangle, bordered by the Hudson River and New Jersey, cooperate with the countywide Vocational Education and Extension Board to share in a comprehensive service and training program as rich and varied

as that in any city. And the dollar cost to each district falls well within what it can afford to pay.

Directed by Garrett Nyweide, the Rockland County Board coordinates the total program of shared services and vocational education.

Shared services

Special services are made available to every school district, whether its enrollment totals 159, as in Tompkins Cove, or over 3,000, as in Ny-

Out of the total staff of 90 specialists and instructors, special service categories include: doctor, nurseteacher, dental hygienist, psychologist, physical education instructor,

Building trades









speech therapist, remedial reading, art and music teachers and guidance counselor.

Each district may buy from the Board as little as half a day per week of a given service, and may increase or reduce its purchase as changing enrollments require.

No two districts buy the same combination of services, but a typical schedule is that of Garnerville, a union free district with a K-8 enrollment of 400. This district needs a nurse-teacher 2½ days a week, a music instructor 3 days, guidance counselor and speech therapist 1 day each, art instructor 1½ days, and a dental hygienist ½ day.

The union free district of Nanuet, twice as large with a K-8 enrollment of 850, employs its own full-time nurse, arranges for local dental care, and employs full-time art and music instructors. But it calls on the Vocational Board for part time instructors in physical education, home economics and industrial arts, and for a psychologist one day a week.

In large cities like Buffalo and Rochester, such help is readily available; in smaller cities and in rural and suburban areas, school administrators are seldom able to provide more than one or two such services. The dollar cost is prohibitive, but that is not the only limiting factor. Each specialist is needed only parttime in a small district. And even if a district were wealthy enough to afford a full special service program, the problem of finding qualified personnel able and willing to work part time would remain. Rockland's shared services program employs personnel full time, charges each school district only for what it needs.

Shared vocational opportunities

Seven high schools serve some 5,000 Rockland County secondary students. Consistent with the elementary school effort to determine and meet the needs of the individual pupil, high school curriculums vary, but all offer the broadest possible range of courses.

To meet specific vocational needs, 19 countywide courses, in addition to commercial courses offered independently by each high school, richly supplement a total program. Supervised work-experience extension courses, carried out on the premises of different business and industries through the shared vocational education program, help integrate all instruction with community employment needs.

Last year 48 firms, ranging from grocery stores and service stations to plants such as Lederle Laboratories Division of American Cyanamid Corporation, Kay Fries Chemicals, Inc., and Dexter Folder Company, participated in this program.

There is no separate vocational high school in Rockland County. The entire program is decentralized and coordinated by the Vocational Board. School districts with high schools act as sponsors and provide space and equipment for vocational education, with each high school district thus a physical part of one segment of the program.

The 19 vocational courses—and the seven high schools—are linked by a countywide bus network, owned and operated by the Board. The courses offered range from dress design, power sewing and beauty culture to farming, service station maintenance, television repair and building trades.

Students spend half of each day in their "home" high school in academic courses and the other half in vocational education wherever the course is given. Courses for a specific student might be located right in his "home" school, or in a participating high school, or on a vocational "project."

Building trades courses, for example, regularly shift location as the current working project, which serves as the classroom, is finished and another begun. The building trades students recently constructed a Rockland County Center for the Physically Handicapped—the most ambitious project yet undertaken by these vocational students who have completed a number of private homes and a teen age center in Spring Valley.

As one team of students, budding architects and draftsmen, completes blueprints, student masons move in to pour concrete, and horticulture students survey for landscaping. The foundation laid, student carpenters, plumbers and electricians take over. Meanwhile the drafting and design group will have moved on to the next project.

A vital factor in the success not only of building trades projects, but of those in auto mechanics, sheet metal, machine tool work and quantity cooking, has been the consistent support of local unions. In some in-

Machine shop

Power sewing

Auto electric & carburetion



stances, union leaders help run the projects. They help find the best qualified instructors; one union supplements an instructor's salary; another contributes toward the purchase of tools and equipment in its trade, and several offer prizes to top students.

Raw materials, space and training opportunities are offered by business, industry and private citizens. In some instances business and industry offer on-the-job instruction. Several local banks help train girls in the operation of Burroughs Bank Bookkeeping Machines.

Rockland County's program is, in the opinion of the eminent sociologist, Dr. Hubert Evans, unique in the United States. It is unequalled in diversity and practicality by the vocational programs in most large cities—and at a fraction of the cost. Educationally, the implications of the program represent a challenge.

Take the case of an Alabama farm boy, for instance, whose family moved to Rockland County when he was 14. He had only one ambition: to learn farming and become a farmer. He had no interest in the usual academic courses. In many high school situations he would have dropped out as soon as he became 16. Instead, this boy was steered by the school's guidance counselor into the Vocational Board's agricultural courses. One feature of the Rockland program, unusual below the the college level, is that the agriculture students have the opportunity actually to operate an entire farm. This boy found himself and continued in school.

In another high school, a girl with

a comparatively high intelligence rating resisted all attempts to arouse her interest in routine academic courses. Testing brought to light the fact that she possessed to an unusual degree the combination of aptitudes and skills specific to mechanical drafting and design. She is now one of the best students in this vocational course—and the first girl to take it.

Chief coordinating agents of this entire complex program are the guidance counselors. Each guidance man is responsible in the high school to which he has been assigned, not only for the 12-20 percent of students from that school enrolled in vocational courses, but for all the students in the school.

An educational bargain

The cost of this program? Last year the total budget for all programs coordinated by the Vocational Board came to \$662,000—and this amount for countywide service in an area where several individual school district budgets run over a million dollars.

Of this amount, one third was returned last year in state and federal aid toward instructors' salaries and vocational transportation. All but \$100,000 goes directly to instructional services. The cost per vocational student—in spite of the high cost of structural steel, cement, and all kinds of tools, machinery and equipment—was only \$370.38 this year. A slight increase to \$380 is estimated for the coming year.

The Board's accounting system is intricate but logical. Each sponsoring district receives credit for space at so much per square foot and an allotment for equipment and supplies. Each district is then charged an annual sum for instructional services from which the above credits are deducted. Transportation costs are allocated on a per capita basis. Non-high school districts buying only special services pay for the number of half days involved. The Board pays all instructors' salaries and administrative and incidental expenses.

The 26 districts concerned could not, even by pooling, afford one separate vocational high school for the county, but they can afford a share in this countywide program.

Every district is free to buy as many or as few special services as it wants. Any of them may withdraw from their part in the vocational education program at any time. The only compulsion toward cooperation is a provision of the State Education Law which stipulates that when a vocational course desired by a student is available, the high school must arrange for him to take it.

To function smoothly, the program depends upon the wholehearted cooperation of hundreds of people—county officials, school administrators, executives in business and industry, labor union leaders and citizens. And for the last ten years such cooperation has been forthcoming in full measure. What began about 1930 as an experiment has expanded into full-blown vocational education service to the entire area with ramifications touching every pupil.

It is not surprising to find a growing demand for Rockland trained coordination experts, many of whom are already working in different parts of the globe. Representatives from other parts of the country and from countries abroad have come to study the various ways in which the Rockland program interlocks school and community.

The people of Rockland County feel, with justification, that they are not only making educational history, but that their county program might serve thousands of other communities as a springboard to greatly enriched educational opportunities at minimum cost.

Auto mechanics



Cabinet making



Can Segregated Bids Mean Lower Building Costs?

by WILLIAM F. KIMES

Assistant Superintendent, Business Orange Coast College, Costa Mesa, Cal.

W

ITH THE CONTINUOUS increase in the cost of school buildings, the school administrator always seeks ways and means to get the greatest return on the building dollar expended. One method, found effective in some areas, is that of taking segregated bids on buildings. "Segregated" bids means breaking down the general contract into the major components such as electrical, heating and ventilating, plumbing, general, and any other specialized jobs.

With this system, the architect must prepare separate plans and specifications for each of the segregated bids. The architect's contract in such cases calls for 30 to 50 percent in additional fees for the segregated items, as well as the standard 8 percent fee on the low "general" bid. It is the responsibility of the district to evaluate whether both of the fees are reasonable and justifiable; there are many cases, however, where competent architects have done, and are doing work under contracts that amount to far less than the "standard" fees.

When the notice of bid is published, there is a statement announcing that segregated bids will be received at a scheduled meeting. Each bidder must fulfill all requirements for bidding as a prime bidder even though he is not the "general" contractor.

Segregated bidding offers advantages both to the bidder and to the school district. In the first place, the bidder knows that his bid will not be "peddled," a practice in which the general contractor takes a subbid and then requests some other sub-contractor to give a lower figure.

In short, the efforts of a bona fide bidder are "peddled" to someone who has expended no effort to secure the bid. To defeat this practice, most contractors withhold the sub-bid until the last hour so that the general contractor will not have an opportunity to "peddle" the sub. Segregated bidding reduces "peddling" to a minimum and, consequently, makes possible a better bid.

A second advantage to the bidders, general as well as segregated, is that it reduces the size of each bid so that the smaller local bidder has an opportunity to bid; the general contractor, too, is in a position to secure bond on a segregated bid where he might not be able to handle a full general bid. Very few will deny the advantage of employing local firms.

A third advantage to the segregated bidder is the knowledge that they will be paid promptly for work completed. Far too often, the general contractor receives his progress payment but fails to pay his sub-contractors who must then take emergency measures.

A fourth advantage is that the bidder works directly with the architect and clerk-of-the-work rather than through the general contractor. In non-segregated bidding, the general contractor often directs the sub to do a particular job and then denics all knowledge of it when the matter is called for correction. The obvious end result is that the subcontractor is held responsible for the correction of the work.

There are however two aspects of non-segregated bidding that must be considered carefully—that is the inability of the architect and the clerk-of-the-work to coordinate the various sub-contractors whose contracts are awarded on low bid rather than past performance or potential. Personality conflicts between the general and sub-contractors can also complicate and even hamper the work progress.

Some general contractors do not bid on segregated jobs because they feel that "all profit has been taken out." This tendency is not disadvantageous to the district unless such lack of bidding interest reaches a point where there is no reasonable competition.

In cases where the district has called for both general contractor's bids and segregated bids, there appears to have been insufficient difference to make segregated bids a profitable venture. Whether or not taking bids both ways at the same time is a reasonable comparison is a difficult question to answer.

In practice, the general contractor adds a percentage to the total of all the subs used for "overhead," a percentage for contingencies, and a percentage for profit. These percentages, as legitimate as they are, run from a minimum of 15 percent to as much as 25 percent of the total. In fact, the percentages are actually figured twice-once by the sub-contractor, and again by the general contractor. All these charges can be eliminated by segregated bidding. In segregated bidding there is additional office work for the school district, but this, however, does not affect the cash value of the segregated bid.

Sub-contractors, in a segregated bidding arrangement, need not wait for the completion of the entire job before filing their notices of completion. The general contractor, too, can file for completion even though one of the sub-bidders has been unable to finish his job.

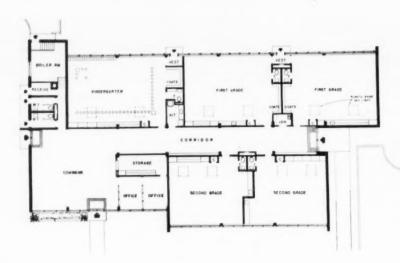
Districts that have used segregated bidding continue to do so because they feel that such contracts give a greater return for the dollar. Segregated bidding has much to offer, not only in getting more for each building dollar but also in improved public relations. Satisfied builders and construction employees make excellent publicity agents for a school district.

School Plant Today

Business Building Tomorrow

Grand Rapids builds
a convertible school
to meet current needs
... but with an eye toward
dwindling enrollments

by HOWARD F. FENSTEMAKER and BENJAMIN J. BUIKEMA



How do you solve the problem of an acute classroom shortage now, in an area that won't contain any pupils in a decade or so?

Two years ago we faced this kind of problem in one area in Grand Rapids—a problem that ran counter to the national trend of burgeoning enrollments with no end in sight.

We had more children, particularly young children, than we could comfortably accommodate in our present classrooms. But the area was rapidly becoming industrialized at the expense of residences. And the city was planning an expressway along a route that will slice into the area's attendance boundary. Another nearby school will then be able to serve the remaining population in that section of the city.

So the school board was faced with the need to erect a school which would have an expected usefulness of only a decade or so.

Convertible, not temporary

We could have put up temporary classrooms. But another decision was made after the board commissioned Louis C. Kingscott & Associates, Inc., to study the problem, make recommendations and design a building to satisfy the situation. The result was the new Maplewood Neighborhood School, a "convertible" school that will serve other purposes after the children move away.

Its dual purpose was kept in mind through the planning and drawing stages, and the finished building can be easily adapted to commercial





Spacious classrooms fill present and future requirements. Interior will adapt easily to conversion; only one interior wall is loadbearing.

or light industrial use when the time comes for the board to sell the property.

The interior is highly flexible. Only one wall is load bearing-the wall that separates the kindergarten from the boiler room, receiving room and rest rooms. Other walls may be moved or eliminated, and to facilitate such remodeling the wall between the office and second grade room has been constructed as a knock-out block panel. Because the rooms are large, it is more likely that partitions would be added for commercial offices rather than existing walls removed. If all interior walls were eliminated, however, only the precast concrete columns in present corridor walls would have to remain.

As a school, the building accom-

modates children from kindergarten through second grade—the most critical years. Here the child not only becomes acquainted with the formal learning process, but comes in contact with groups of children of the same age, away from the security of his home. These first few years may well shape the child's behavior in adult society.

The neighborhood school idea fosters growth in a healthy transitional atmosphere and, in this case at least, also relieves the pupil load at the other elementary school in the area.

The large commons, or generalpurpose room, is used now for school and neighborhood group meetings. For future commercial use, this space would serve nicely as a spacious reception and waiting room. Or it could be used in part as a stockroom or for shipping and receiving by a small manufacturer.

Interior finish materials, ideal for the school, are also suited to nearly any future business activity. Floors are asphalt tile, with quarry tile at entrances, terrazzo in toilet rooms and janitor's closet, and concrete in boiler and storage rooms. Face brick and lightweight block form the interior walls. The ceilings are 'acoustically treated.

If unforeseen factors should reverse the population trend in this section of Grand Rapids, the school system will have a useful permanent building. Otherwise the school board will have a pre-planned commercial structure that will repay on the real estate market its original investment with interest.



Flexible commons provides meeting space, indoor play area. Offices beyond are adaptable to commercial use in the future.

Educational Leadership the state should lead the way

by FLOYD G. PARKER

Assistant Professor, Administrative and Educational Services Michigan State University, East Lansing

STATE DEPARTMENTS of education, in their development through the years, have moved gradually through three distinct stages.

During the first stage attention was focused on collecting information from the county and the local levels. This activity still constitutes an important function in state department organization; however, the limitations in terms of service soon demanded a broadening of the state responsibility. Thus, the second stage, the inspectorial stage, evolved and the need to guarantee the execution of state law provisions, was realized. Stage three has emerged within the past few years as a much more appropriate and functional aspect commonly known as educational leadership. It is within this stage that various service features, independent of the earlier statistical and inspectorial stages, have developed.

The growth of state educational services has been one of the most significant developments in the history of American education. As nominal head of the state public school system, the chief state school officer and his staff are responsible for long-range planning and professional leadership.

A recent study by the author has provided the Nebraska State Board of Education with a clear-cut statement of policy and recommendations on the role of the school plant section. This topic is particularly timely at present since the school plant division of the United States Office of Education and other agencies are

At this writing, Floyd Parker was director of school building services for the Nebraska State Department of Education. This story has been adapted from his doctoral dissertation "The Role of the Nebraska State Department of Education in Providing School Plant Services."

concentrating their efforts on this area.

Education is a state function, delegated to the state departments of education by statute and legislative action. The powers delegated or assumed at the local level require a satisfactory working relationship as well as leadership from the state. To provide the necessary leadership, the state must formulate long-term plans and policies which will make possible local opportunities for development through stimulating and challenging services.

Regulatory function

It is the responsibility of the state department of education to develop basic criteria (rather than codes or standards) for planning and constructing public school facilities which promote the health, safety and general welfare of children. It is the responsibility of the state to ascertain the scope and quality of instruction, efficiency, management, safety, and economy of public money.

These factors play a very important role when applied to the area of school plant services.

The leadership function

It is the major responsibility of the state department of education to provide aggressive and determined professional leadership. To be effective, the leadership function must be positive and genuine. It must, above all, express the needs of the people. With such leadership, there is no ceiling for educational improvement; it continually strives for the highest possible achievement. For example, encouraging local school administrative units to develop above and beyond the minimum required by the State Accreditation Standards is one of the main responsibilities of leadership. True leadership at the state level must rely upon voluntary efforts rather than upon compliance, and will thus carry school systems beyond conformity.

Coordinating responsibilities

The state department of education must cooperate with other educational agencies such as the state university in its surveys and research of the local and intermediate levels of education.

Through its leadership function, the state department of education can stimulate the coordination of all agencies concerned with improving educational opportunity for all youth.

Other recommendations to the Nebraska State Board of Education are:

- —To expand cooperative working relationships within the total staff of the State Department of Education.
- —To develop and distribute printed materials as they relate to the adopted school plant basic criteria with the aid of recognized authorities and advisory committees.
- —To provide a central microfilmed file of final site and building plans for all public school construction.
- To sponsor and/or co-sponsor school building clinics.
- —To encourage legislation, for purposes of health and safety, requiring that all school facilities be designed and constructed under the supervision of an architect registered in the state of Nebraska.

In the organization and promotion of activities relating to the continued improvement of school facilities, the leadership function is a distinct challenge to the state department of education personnel and, as such, places rather definite responsibility upon school plant personnel in the state agency.

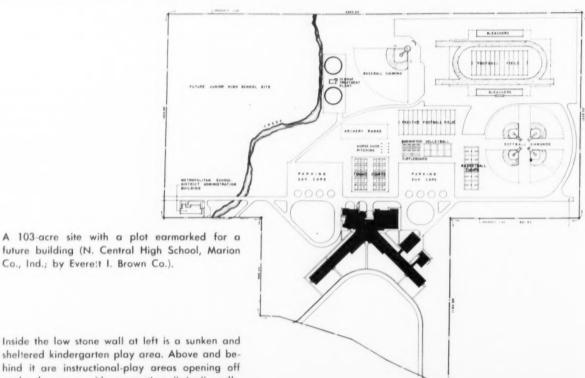
Let's take a walk through NEW SCHOOLS

AST YEAR more than 10,000 educational buildings were constructed in the United States approximately 1,000 more than during the previous year-at a cost of over \$3 billion. School construction is obviously big business, and it promises to stay big. What do these new schools look like and how do they differ from those built five or ten years ago? A walk through these buildings would be a profitable field trip for any schoolman planning a new school in his own community. A pictorial walk-through is given here, based on the designs of 134 educational buildings entered in The School Executive's 1956 Competition for Better School Design (see May issue, page 79, for competition results). Though most elementary buildings are designed for an enrollment of from 200 to 400 at a cost of \$2-300,000, they range from one designed for 210 children in grades 1-6 for 365,703 to the other extreme of a 1200-enrollment K-3 school costing \$936,083. The usual cost range for secondary schools enrolling 500-1000 is \$1-21/2 million. One high school with a 1.55 enrollment cost as little a \$222,199; another with a 2,000 enrollment cost \$4,413,444. Almost all schools are single-story except where site restrictions have dietated atherwise. On the basis of these 134 designs, there seems to be in a son acceptance of the belief that the school plant is a tool whose unity depends on the extent to which it embodies educational ideals, can adapt to changing educational concepts, and helps to promote growth of children through democratic living. Crippling restraints on flexibility within spaces are less evident. However, many classrooms that could be used with considerable freedom show little indication that they are so used-traditional rows of desks would seem to imply that imaginative planning of the building has not always been carried through to its use. While student commons appear frequently in these new designs, demonstrating acceptance of the idea that the school is a place for social living, the plans show little attention given to the comfort, relaxation and welfare of teachers. The teachers' ounge has yet to come into its own as something more than an enlarged closet. All too often, school districts short-change themselves by buying a building that is technically adequate and that violates no state code, but that does nothing to add beauty and a creative atmosphere for living and learning. Probably the subtlest quality in a school certainly the hardest to pin down in words-is the architect's attempt to capture in the school design and facilities an atmosphere that will permit maximum attainment of educational values. There is opportunity unlimited for those who plan and design educational plants to go beyond the adequate to the extra. On the following pages are examples of features in schools built last year that seem to show best how architects have done the extra to create a desirable educational environment.



No two sites offer the same problems, or opportunities, to the architect. As in previous years, the planners tend to adapt to rolling sites, taking advantage of knolls and hollows to provide outdoor amphitheaters, separated play areas, and the like. Few sites were really spacious, though many contained as much as 15 to 20 acres; they ranged from 103 acres to a portion of a city block (both shown here). Where large they allow a broad range of athletic and recreational facilities, and permit the building itself to spread out nicely in campus or cluster arrangements. From the plans, however, little attention seemed to be paid to educational uses of the site. Urban architecture poses special problems, and few imaginative solutions appeared. Here, for instance, one would like to see the school put on stilts to provide maximum open play areas, or an upended version of the schools-within-the-school idea with a little school on each floor.



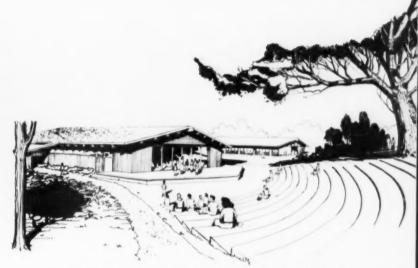


Inside the low stone wall at left is a sunken and sheltered kindergarten play area. Above and behind it are instructional-play areas opening off each classroom with separating "wing" walls. (Erdenheim Elementary School, Springfield Twp., Pa.; by Howell Lewis Shay & Assoc.).





A deep ravine that slices through this site works as a sound barrier and provides a charming passage between the multiuse area and classroom wings (Walnut Creek, Cal., School; by John Lyon Reid & Partners).

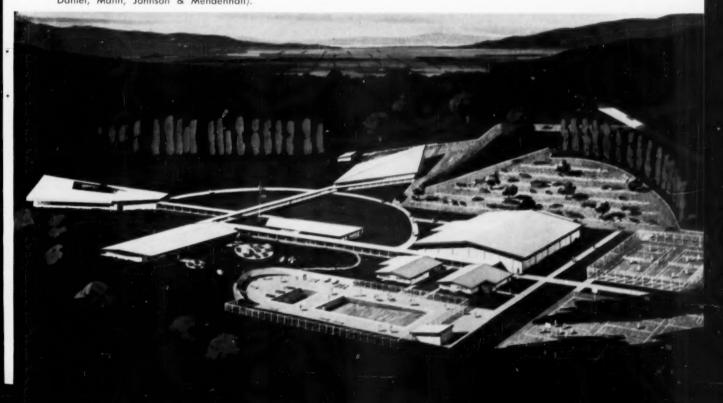


Site contours have been utilized to form a natural amphitheater; porch at one end of multiuse building serves as stage (Lone Hill Elementary School, Los Gatos, Cal.; by Higgins & Root).

Junior high school for 1600 pupils on a city block includes outdoor play area for school-community use (Berger Jr. H. S., Bronx, N. Y.; by Brown & Guenther).

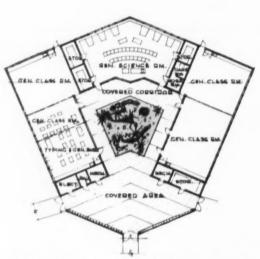


This 43-acre site is utilized to serve the community's social and recreational needs (Cuyama, Cal., Valley High School; by Daniel, Mann, Johnson & Mendenhall).

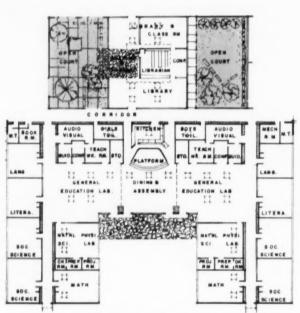


layout of spaces

Artificial barriers that regiment subject matter and personal relationships are on the way out. Large schools are being broken into smaller units to allow closer pupil-teacher association, characteristic of a small school, without losing the advantage of extensive facilities. Frequently the teaching spaces radiate from a common hub, which might be the library, commons or multiuse room. Several junior high schools revealed concern for pupils' transition from elementary to high school by providing separate areas for block-of-time or home-room activities. These new schools also show a continuing trend away from rectangular forms: circular libraries and auditoriums, hexagonal and trapezoidal shaped classroom units and angled wings are examples. These are frequently dictated by the contours of the sites and form interestingly shaped spaces within the building.

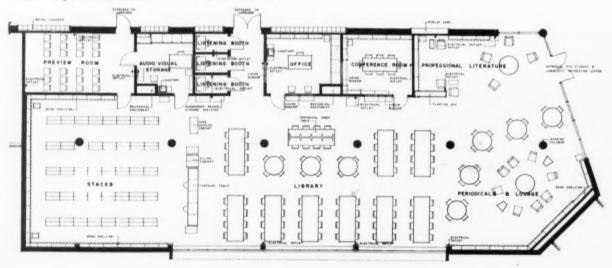


Academic facilities in a 6-sided wing (Cuyama, Cal., High School; by Daniel, Mann, Johnson & Mendenhall).



Portion of academic wing with labs and workrooms (N. Hagerstown, Md., High School; by McLeod & Ferrara).

Well equipped library suite for wide use of a-v materials (N. Central High School, Marion Co., Ind.; by Everett I. Brown).





Multipurpose playroom-auditorium; its stage doubles as lunchroom and, with curtains drawn, as audio-visual room (Nathan Hale School, Meriden, Conn.; by Sherwood, Mills & Smith).



Junior high transition: project rooms are grouped around library located in woods away from center of school; here students spend half a day with their project teacher (Burrs Lane Jr. High School, Pt. Jefferson, N. Y.; by Daniel Perry).







teaching spaces

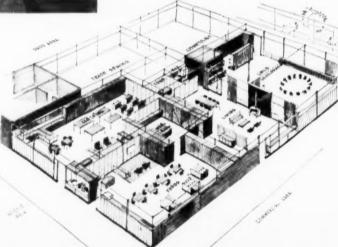
No longer just bleak oblongs with a couple of punched-hole windows, today's classrooms are shaped and outfitted to provide a maximum of teaching learning opportunities. Elementary schools continue the lead they established a decade ago in providing large classrooms with ample storage and teaching-display areas and work surfaces. Secondary classrooms are showing more concern for youngsters' independent work opportunities; many have adjacent workrooms, labs and conference areas. These spaces are becoming more functional with improved furniture, movable casework, flexible space dividers and light and sound controls. A few have been designed with an eye to school-wide television facilities.

Chas. R. Pearson



Gymnasium ceiling equipped with electricallyoperated louvers for light control (Bothell, Wash., High School Gym; by Ralph H. Burkhard).

Home arts unit for a large high school; folding doors and top lighting add to its flexibility (Linton High School, Schenectady, N. Y.; by Perkins & Will).



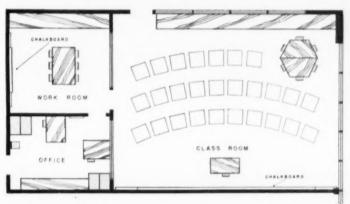
Roger Sturtevant



Another homemaking unit, this one for grades 7-8; note wall decoration of food measurements (Walnut Creek, Cal., School; by John Lyon Reid & Partners).

Julius Shult

Light and spacious, yet cozy—a nice environment for a child's first school experience (Lakeside, Cal., Kindergarten; by Whitney Biggar).



Classroom, showing possible furniture arrangement, with adjacent workroom and office (Mt. Pleasant, Mich., High School; by Louis C. Kingscott & Assoc.).

Roland Chatham

Lower-grade classroom with activity alcove, acoustical ceiling and tackboard wall paneling (Mattie L. Jones Elementary School, Tyler, Texas; by E. Davis Wilcox).



new schools

interior courts

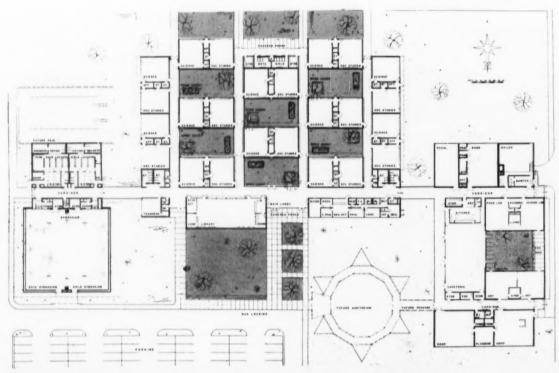
One of the predominating design trends in these new schools appears to be the interior court. Partially or completely enclosed, these courts function in a variety of ways: as an extension of the classroom on sunny days, as a nature observatory, as a spot for an amphitheater, or as an entryway. Some of these uses are pictured here. These courts also serve to admit light into the rooms that enclose them and help to break up the mass of a large school plant. But particularly they spark the environment by bringing into the classroom, through a glass wall, a bit of the out of doors.



Sliding glass doors open onto outdoor classroom area (Fred Ekstrand Elementary School, San Dimas, Calif.; by Daniel, Mann, Johnson & Mendenhall).

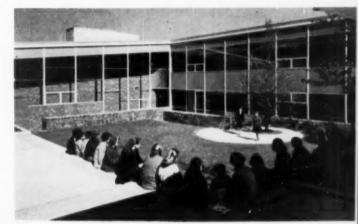


Enclosed court provides protected play area for lowergrade youngsters (Mattie L. Jones Elementary School, Tyler, Texas; by E. Davis Wilcox).



Cafeteria, library and all classrooms open onto a court (Plymouth, Mich., Junior High School; by Eberle M. Smith Assoc.).

S age court uses low masonry walls as stage backdrops and wide steps as seating (Nathan Hale Elementary School, Meriden, Conn., by Sherwood, Mills & Smith).



Robert Stahman

Entrance court is made spacious and inviting (Sedro-Woolley, Wash., Junior High School; by Mallis & DeHart).

Central patio provides easy approach to separa:e building units and thoughtfully includes a bench (Religious Education Building, Pasadena; by Smith & Williams).

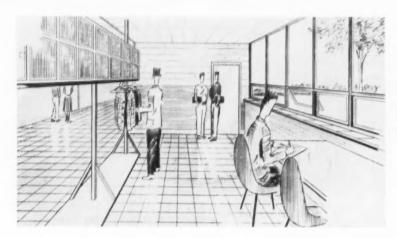




new schools

storage

The richer the program, the more storage space needed. Today's classrooms need much room just to put things not momentarily being used—instructional gadgets and equipment, projectors, construction paper, paints and texts. Storage space for students' wraps and books is another problem. Open cloak storage in corridors is increasingly popular, and more schools now logically include a low bench—a handy extra when the weather requires overshoes. Cloak storage in the classroom is common in lower elementary rooms; these rooms frequently provide individual wall cubicles for youngsters' materials. Here are shown several schools' solutions to the where-to-put-it problem.



Student coat and book alcoves off the main corridor (Mt. Pleasant, Mich., High School; by Louis C. Kingscott & Assoc.).

Classroom with built-in drawers, cabinets, sink, file drawer and (not shown) low storage bins for pupils' materials (Kutztown, Pa., Elementary School; by Wolf & Hahn).



Triple-duty panels conceal wraps in classroom (Traphagen Elementary School, Waldwick, N.J., by Ketchum, Gina & Sharp).



Cortland

THE SCHOOL EXECUTIVE

Storage for coats and rubbers along corridor includes handy ledge (Gen. Mitchell School, West Allis, Wisc.; by Schutte-Phillips-Mochon Inc.).

Solution similar to that shown above, this one with individual storage cubicles (Pangborn Blvd. Elementary School, Hagerstown, Md.; by Chapman & Lefler).





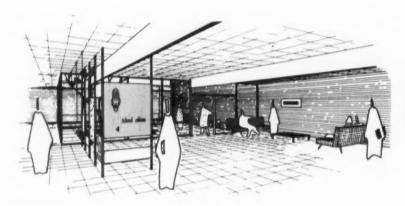
Storage area for coats and rubbers also acts as room divider; equipment used by children is stored in bins under windows (Madision Elementary School, Livonia, Mich.; by Giffels & Vallet, Inc., L. Rossetti).



new schools

commons

Schools, like homes, need family living rooms. These are appearing increasingly in new schools with such names as "commons" or "student lounge." Frequently located in a pivotal spot, near the main entrance or between the classroom and special-activity wings of the building, they form the heart of the school. Here teachers and students may relax for informal learning and social activities. This space has grown out of the educational theory that social intercourse with one's peers can be as productive a learning experience as any classroom activity. Often these areas are combined with others in the school, such as an art or display gallery, library or cafeteria, as shown here. Frequently, too, they are located near the student government and activities offices.



Student lounge and display space are combined in enlarged section of corridor (Sedro-Woolley, Wash., Junior High School; by Mallis & DeHart).

Student commons-cafeteria is centrally located, colorful and spacious (Como Park Jr. High School, St. Paul; by Haarstick Lundgren & Assoc.).

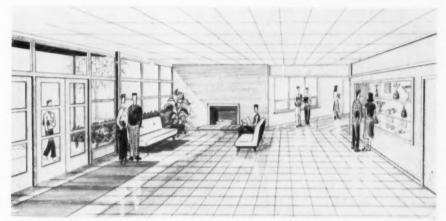


Social corner in library (Highland Park, Ill., High School; by Loebl, Schlossman & Bennett).



Infin

THE SCHOOL EXECUTIVE



Main lobby designed for social living and display of school awards (Mt. Pleasant, Mich., High School; by Louis C. Kingscott & Assoc.).

Spacious student lounge for a 12-year school (Blackdog School, Savage, Minn.; by Haarstick Lundgren & Assoc.).



Grouped around this student commons are administrative and guidance offices, student activities room, study hall and library (Ramapo Regional High School, Franklin Lakes, N. J.; by Sherwood, Mills & Smith).



Robert Stahman

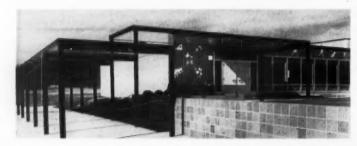
new schools

ar

In recognition of the need to make a school "a nice place to go to," many architects have made color and beauty a part of their building's environment through tasteful inclusion of the fine arts. Colorful and identifying murals—painted, or made of tile or wood designs—appear in a number of these new schools. Some of these are fixed on the building's exterior (a delight to passers-by) or in the school's entryway, and still others appear on classroom walls. Also shown were display spaces for products of the creative arts, thus allowing children a sense of pride and stimulation in seeing their own handiwork displayed. Here, then, we see some of the ways by which architects have designed attractive and functional school plants and, further, have created truly desirable educational environments.



Colorful tile facade and harlequin-patterned doors make this an inviting entrance (Erwin Trask School, Plainville, Conn.; by Brewer & Austin).



On this school's entrance, decorative porcelain panels depict basic junior high school studies; specially designed decorative brick is also used here (Hazel Park Jr. High School, St. Paul, Minn.; by Ellerbe & Co.).

Scenes from fairyland adorn the walls of this classroom to the delight of its young inhabitants (Lakeside, Cal., Kindergarten; by Whitney Biggar).





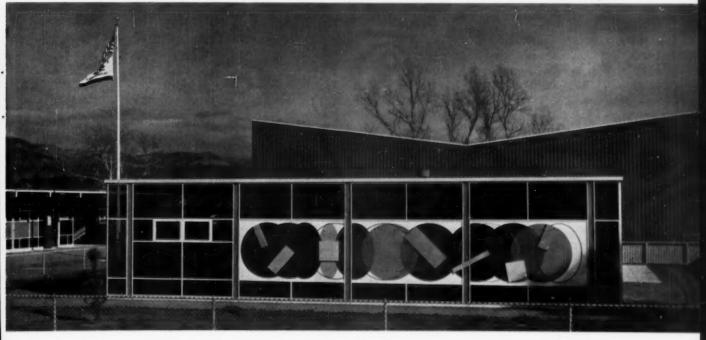
Colorful glazed tile figures brighten this school's play-shed (Tokeneke Elementary School, Darien, Conn.; by O'Connor & Kilham).



Students from local high school designed this mural for corridor walls (Watson Road Elementary School, Chilliwack, B.C., Canada; by Anderson & Raymer).

Playful mural with a third dimension decorates the end wall of kindergarten building (Sonoma, Cal., Elementary School; by Mario J. Ciampi).

Rondal Partridge



June, 1957

You cannot teach morale as a subject. Morale can be sensed, measured, increased or decreased and defined, but no one has ever seen all of the factors which prove its existence. Morale is illusive yet there is evidence of it. It certainly is a by-product of stimulated human relations.

Morale can be had cheaply since money is not necessarily one of its factors. With good morale comes success, accomplishment, and happiness but the lack of morale breeds failure, dissatisfaction and discontent.

Schools have been slow in recognizing the value of morale. Industry has researched the relation of personnel morale to work output for many years. Much of the work in the field has been done for industry specifically; during the past few years, however, many vital educational problems have been attributed to poor morale and this question has become a much studied educational subject.

Efforts to remedy poor morale have been made in all walks of life. The armed forces call beer and ice cream good morale builders; emotional wartime speeches have lifted the morale of whole nations; industry has given workers clean rest rooms and coffee-breaks; husbands carry home candy and flowers; and school officials show tolerance and understanding toward their tired staff at day's end. All of these factors have made a difference in morale.

What factors contribute to high morale in educational organization? "There must be a fullness of relations with a close knit group of colleagues and friends; a real knowledge that individuals want to belong, to be secure, and be inspired; a realization that individuals want freedom to expresse personal creativeness without subceratic controls."

These three requisites blended into the pattern of living and working together constitute the core of true human relations.

Morale can be measured in a num-

ber of ways: industry relates it to the amount of work a person produces in a given length of time; management, community organizations and others, use a person's contribution to the group as yardsticks; schools can use both of these devices plus the intangible feeling that one senses when visiting a school having good morale.

William Braem in a doctorate dissertation written at Teachers College, Columbia University, 1948, cites that some psychological bases for morale can be found in such factors as justional literature and is willing to learn from others the objectives and needs of the schools.

 is free from political ties and a possessor of integrity and firmness of purpose.

has a working relationship with the members of the community and has various agencies at his disposal.

 helps to select a qualified, efficient and conscientious person for the head administrative position; a person who

This intangible something which some call feeling, which others call attitude, known to most of us as morale, is a force of tremendous power. And . . .

Keeping Morale

by HARVEY HANDEL

Principal, Oneida Junior High School Schenectady 8, N.Y.

tice, recognition, leadership, stimulating contacts, achievement, security, mental health and physical fitness. Morale, therefore, is an outgrowth of many things, and members of a school organization must consider all of these elements in their everyday relationships. Here are some thumbnail rules which influence the morale of the school staff.

The board member can . . .

The school board member can contribute most to the morale of the school district and the staff if he:

- is sincerely interested in the welfare of youth in a democratic America.
- 2. is not biased and can face issues with an open mind.
- 3. is well acquainted with educa-

- will carry out his responsibilities in a manner conducive to building good morale.
- gives each member of the school staff security of employment and reasonable support for academic freedom from special interest and pressure groups in the community.
- is interested in providing a pleasant working environment for all personnel along with the tools, materials and equipment which they require.
- solicits lay participation in developing salary schedules and personnel policies comparable to those of other professional workers with a similar amount of training.

Campbell, Clyde M., "Security and Freedom-Requisites for Morale," The School Executive, July 1951, p. 41.

- builds favorable teacher reputations through his community organization contacts by showing respect and enthusiasm for their work.
- encourages lay participation by spreading some of his duties among qualified individuals or groups in the community.
- tries to encourage favorable relations with the school faculty associations and understands their purposes and objectives.

- 2. compliments exceptional work of the staff when credit is due.
- formulates an orientation program for new teachers which builds up confidence, security and assurance.
- shows leadership in organizing a functional in-service educational program.
- organizes principal-internships so that new principals will be acquainted with the philosophy and organization of the school system before they take office.
- 6. formulates a modern person-

- leave, merit rating, vacations and up-grading.
- formulates a policy for handling grievances speedily and fairly.
- 12. defines each individual's duty, responsibility and authority.
- encourages the supervisory staff to help formulate educational policy.
- is up to date on population trends so that he may arrange for proper housing for his staff.

The principal can . . .

The principal can best increase the morale of his staff if he:

- discards a dry attitude and cultivates friendly, understanding, relations with his teachers.
- has faith and confidence in all his co-workers.
- creates a democratic atmosphere so that a modern approach to administration can be maintained.
- gives his teachers full public credit for their contributions.
- solicits the participation of qualified individuals in the solution of problems.
- distributes the teaching load so that it is equalized within the school and reduces extra assignments to the minimum.
- discovers the potentialities of the staff and utilizes their abilities to the utmost.
- exercises leadership but not at the expense of individual freedom.
- judges the work being carried on in terms of the abilities of the persons concerned and the conditions involved.
- encourages faculty social organizations so that friendships and loyalties can offer the teachers common ground.

The social rules for good morale are similar in the three positions outlined above.

The profits from good morale in a school system are enormous. In the final analysis, are not the students the beneficiaries of good staff morale?

where it should be— UP

... has been known to spell the difference between organization success and failure. Here are some pointers for you, the school board member, superintendent and principal to follow in your staff relationships

- 13. allies with state and national school board associations to sponsor a democratic philosophy of school boards which insures that academic freedom exist throughout America.
- delegates executive activity as a unit to trained personnel.
- supports supervisory officers and faculty members in their educational policies if these policies result in educational and community improvement.
- can work democratically with others toward a common goal.

The superintendent can . . .

The superintendent can best increase the morale of his staff if he:

 offers leadership in schoolcommunity relations programs.

- nel policy in which changes are called to the attention of the staff as soon as they are made.
- attends staff functions and has daily office hours when teachers can discuss problems with him.
- selects staff members on merit, thoroughly investigates their backgrounds, appoints them to positions commensurate with their ability and charts their progress and professional growth.
- cultivates friendly community and staff relations.
- sponsors a policy of fair dealing and professional ethics on questions of salary, tenure,

100 years of progress:

NEA Centennial Fete Brings 15,000 to Philadelphia

PHILADELPHIA—The National Education Association will observe 100 years of progress in education when over 15,000 teachers and administrators meet here June 30 to July 5 for the centennial convention of the largest professional organization in the United States.

It was Philadelphia which played host to a meeting of 43 educators in the summer of 1857, when NEA was born.

The convention visitors will come from all parts of the nation and its territories to participate in the meeting. The theme is "An Educated People Moves Freedom Forward."

Official convention delegates to the NEA Representative Assembly will number about 5,500.

Thirty independent departments affiliated with NEA, which are devoted to the special interests of teachers from kindergarten to college, will hold meetings as part of the convention activities. Most of the departments plan special one-day meetings on Monday, July 1.

Nea's 24 commissions and committees, which serve the general interests of education, will also meet. They will hold open meetings Tuesday, July 2.

Sections and discussion groups dealing with teacher welfare, public relations, instruction and school finance are on the convention agenda. A series of sessions on the implications for education of the basic social trends of our time is also planned.

Martha A. Shull, a classroom teacher from Portland, Ore., is NEA's president. She will preside over meetings of the Representative Assembly, which is the organization's legislative body.

Delegates from 6,000 local and state affiliates will participate as state and territorial delegations. The Assembly will meet in six business sessions during the convention. On the



Philadelphia-birthplace of NEA.

agenda will be NEA's proposed program for expansion.

Among persons active in education who will speak at the various sessions are James B. Conant, former U. S. Ambassador to West Germany; Norman Cousins, editor, Saturday Review; Bruce Catton, author of A Stillness at Appomattox and editor of American Heritage; and Sir Ronald Gould, president of the World Confederation of Organizations of the Teaching Profession.

Also scheduled for speeches are George Stoddard, dean, School of Education, New York University; Hollis L. Caswell, president, Teachers College, Columbia University; Edgar B. Wesley, NEA centennial historian; William G. Carr, NEA executive secretary; and President Shull.

Martha Rountree's "Press Conference," an ABC network television show, will originate at the convention at 5:30 p.m. EDT Sunday, June 30.

A special "teacher's guest," selected on the basis of suggestions from the nation's teachers, will appear on the program to answer questions presented by a panel of reporters.

School Bell Awards will be made on Friday, July 5, to representatives of communications media for distinguished service in interpreting education. The awards will be presented by eight national organizations.

A Classroom Teacher Banquet is scheduled for Tuesday, July 2. It will be followed by an educational revue, "Schools on Parade," presented by the Philadelphia Public Schools in cooperation with The Philadelphia Evening Bulletin.

Other convention social events include the traditional President's Reception, Classroom Teachers Open House, Future Teachers of America Notables Dinner, and Friendship Night.

More than 200 commercial exhibitors have applied for display space in the Convention Hall exhibit area. Noncommercial exhibits by NEA departments and divisions, and state associations will also be on display.

A national "Children's Art Exhibit" will be on display in Philadelphia's Commercial Museum, part of the Philadelphia Convention Center.

"Not by Chance," a new NEA-produced film on how teachers are trained for their profession, will be premiered during the Philadelphia Convention, and released for use during the summer and fall.

Headquarters hotel during the convention, where each state and territory will have its own room and exhibit, will be the Benjamin Franklin. This hotel will also be the center for walking tours to historic shrines in the Philadelphia area.

Fund Grants \$1 Million to ETV; Stoddard Weighs Large Class Project

NEW YORK—Eleven cities and three states areas will spend close to \$2 million this coming year to experiment with the effectiveness of television as a resource in teaching large classes.

The Fund for the Advancement of Education is contributing about \$1 million to the projects to begin July 1. This sum will be matched by the localities involved.

In an exclusive interview with The School Executive, Alexander J. Stoddard, former superintendent of Los Angeles schools and currently consultant to the fund, explained that the classes involved in the experiments will average between 200 to 400 students.

"The real question involved," declared Dr. Stoddard, "is: Can we teach large classes using television as a resource more effectively, as effectively or less effectively than we now teach small classes, with or without the use of television?"

The project will also try to determine what savings can be effected in teachers, time and building space and facilities, through using TV as a resource in teaching large classes, Dr. Stoddard explained.

If television permits the redeployment of money now spent to keep the learning situation so that there is one teacher for about every 30 pupils, it would permit more school funds to be spent on guidance, mental health and other services, the former Los Angeles school superintendent declared.

"Maybe the school of the future will be more of a team school," Dr. Stoddard conjectured.

"There'll be large classes, maybe much larger than we have now; there'll be small classes, maybe much smaller than we have now; and in addition, there'll be many more services rendered by the schools than are now possible because we lack the money to pay for them."

The experiments will aim at understanding the procedural and technical problems involved in teaching



Pittsburgh's ETV system broadcasts a science classroom experiment.

large classes, Dr. Stoddard declared. "The studies will try to deter-

mine what kind of subject matter lends itself best to this type of teaching. This includes the problem of follow-up and drill, depending on the subject matter."

The state projects will be carried out in small high schools of about 50 to 125 enrollment in rural areas in the receiving range of the television station.

In one state, this means that 124 out of 233 public high schools, within a 100-mile radius of the television station, will be able to offer physics, chemistry, trigonometry, solid geometry and advanced algebra for the first time, according to Dr. Stoddard.

"At the present time, these subjects are either not being taught at all, or in many cases, they are being taught by inadequately prepared teachers."

Experiments in Pittsburgh and St. Louis with small and medium-sized classes have shown that TV can be a powerful resource to be used directly by the teacher with her class, Dr. Stoddard explained.

The participating cities in the \$2 million experiment are Atlanta; Cincinnati; Detroit; Miami, Fla.; Norfolk, Va.; Oklahoma City; Philadelphia; and Wichita, Kans. The states of Nebraska and Oklahoma have also been selected.

Three more cities and one more state are expected to participate, Dr. Stoddard announced.

Conferences in 3 Cities Feature Schools of Today and Tomorrow

America's latest, outstanding school designs went on exhibit at three major conferences on school plant planning held in April at Chicago, Pittsburgh and New York City.

Nearly 150 school buildings under construction in 1956 were portrayed in the display. These architectural mounts were entrees in The School Executive's Sixth Annual Competition for

Better School Design (see May issue).

Educators, architects and other school plant specialists, as well as school board members and laymen, participated in the three events. Over 300 people attended the meetings devoted to school design, equipment and cost trends. Thousands more viewed the exhibits.

The conferees also took a look into the future.

At the Chicago conference, they heard E. T. McSwain, dean, School of Education, Northwestern University, declare that schools of the future must be envisioned as learning centers in a setting for total community education.

They will not be merely groups of self-contained learning cubicles for children, according to Dr. McSwain.

Architect Lawrence B. Perkins of Perkins and Will, Chicago, analyzed school design trends and illustrated design features with colored slides.

Mr. Perkins was introduced by Chicago's general superintendent of schools, Benjamin C. Willis.

Co-sponsoring the event in Chi-

On James Sales Elementary School, Tacoma, Washington

Fir plywood roof deck helps save \$3,300°°



To eliminate 2 x 4 blocking, metal "H" clips were used at unsupported panel edges. Two clips were used for each span. (Clips were responsible for approx. \$20 per M of savings; see table above).



JAMES SALES ELEMENTARY SCHOOL; Tacoma, Washington ARCHITECTS: Lea, Pearson and Richards

ARCHITECTS: Lea, Pearson and Richards CONTRACTOR: Nelson Construction Company STRUCTURAL ENGINEERS: Smith and Murray

5 ways Fir Plywood builds better schools

An excellent example of how fir plywood roof decking sharply cuts costs as well as provides markedly superior construction is this new U-shaped, 1-story reinforced concrete school.

The contractor estimates ¾" fir plywood saved a total of \$3,300.00 on the job; \$2,800.00 in actual installed cost, plus an additional \$500.00 by amortizing costs of some of the panels previously used for forms. A total of 27,000 sq. ft. were used on the job. Design calculations by the architects show plywood superior in resisting racking forces such as wind loads and earthquakes.

Although many home builders have found thick plywood over wide rafter spacing saves money, this is one of the first detailed cost analyses for a larger building. The idea points the way to new opportunities for reducing costs on commercial and industrial buildings as well as schools.

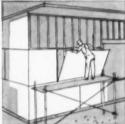
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SPOTLIGHT

Dr. Stoddard (left) presents Top Award plaque to Cambridge, Mass. architect Hugh Stubbins at The School Executive luncheon.

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cago's Prudential Building with THE SCHOOL EXECUTIVE were the Chicago public schools, the local AIA, Northwestern University's School of Education, and groups representing Illinois school administrators, school boards and parents.

Attention to human values in school design was emphasized at the Pittsburgh conference. Landscape architect John O. Simonds, partner in the host city's firm of Simonds and Simonds, highlighted values in the "team approach" to school design.

Using the theme "Somebody About Me!" Simonds Thought showed how good planning and design can boost morale among pupils. teachers, parents and others served by a school plant.

Thoughtful use of new products can do much to improve the school environment, N. L. Engelhardt Sr., Engelhardt, Engelhardt, Leggett and Cornell, New York City, told the conferees.

The co-sponsors of this event with THE SCHOOL EXECUTIVE were the University of Pittsburgh, the Tri-State Area School Study Council and the Pittsburgh chapter of AIA.

The exhibit and conference in New York was held at Teachers College, Columbia University.

During a luncheon at this event, plaques were presented to the architectural firms whose designs won awards in THE SCHOOL EXECUTIVE's Sixth Annual Competition for Better School Design (see story below).

At the opening session of the conference, the groups heard Architect W. W. Caudill and a panel discuss "A School for Tomorrow," developed by the firm of Caudill, Rowlett, Scott and Associates, Bryan, Texas and Oklahoma City.

This advanced concept of school design, which was first published by THE SCHOOL EXECUTIVE in its February, 1957 issue, provoked a lively discussion at the Teachers College Conference.

One of three discussion groups later in the day followed up Mr. Caudill's presentation.

In another group, John K. Weiss, staff director of the Committee of the Marketing of School Bonds appointed by New York's Governor Harriman, discussed the findings of his Committee.

"Television in Tomorrow's School Buildings" was the subject of the third discussion group.

A. J. Stoddard, former superintendent of schools, Los Angeles, consultant to the Fund for the Advancement of Education, discussed school plant arrangements needed to house television programs.

Award Winning Architects Get Plaques at Luncheon

NEW YORK - Winners of THE SCHOOL EXECUTIVE'S Sixth Annual Competition for Better School Design received plaques in their honor at special services held here in April.

At the same ceremony, officials in the local districts where the winning schools were built were awarded scrolls.

Presenting the awards to architects and school officials was A. J. Stoddard, former superintendent of schools, Los Angeles, and consultant,

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The HOWMATIC is compact and maneuverable, even in close quarters. When the HOWMATIC is folded, four, large, hard rubber swivel casters on the center frame make the unit easy to move even in small spaces. Four, fixed casters on the bench legs firmly secure the unit

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Model TT Table Truck is designed with 2-11/8" × 4" wood battons and will handle any size tables. When loaded, this truck can be stored in a minimum of space and is easily moved by one person.

Also manufacturers of chair trucks.

GROGG BROS. MFG. CO.

Spring Grove, Pa.

SPOTLIGHT

Fund for the Advancement of Edu-

The awards ceremony was part of a luncheon meeting scheduled during a school building institute held at Teachers College, Columbia University (see story on page 92).

Winners of the school design competition were announced in the May issue of The School Executive.

Local High Schools Receive Aid From Industry

NEW YORK-Fifteen school systems throughout the United States are now surveying their educational problems and developing programs for improvement, thanks to a unique project of aid to public secondary

Sponsored by the International Paper Company Foundation, and operating in its mill communities, the projects are carried on in cooperation with the School of Education. Alabama Polytechnic Institute and the Institute of Field Studies, Teachers College, Columbia University.

Truman Pierce, education dean at API, and David Austin, Professor of Education at Teachers College, are coordinating this program with the 15 school communities.

The schools themselves evolve their own programs, and the foundation's aid implies no criticism of existing school programs or dictation of policies, according to W. A. Hanway, foundation president.

"I think we have established that it is quite possible and practical for industrial citizens to stand beside individual citizens in support of their public school systems," Mr. Hanway believes.

"We hope that many other companies are going to be interested in this kind of industry-education cooperaton."

The participating school systems are located in communities in or near Georgetown, S. C.; Panama

SE-241

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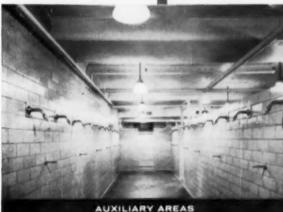
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FORD School Bus Chassis than any other make!

Why?...daily dependability plus low operating costs prove FORD school bus chassis cost less!

Official registration figures show that America's schools bought more Ford school bus chassis than any other make during 1956. That's because millions of miles of actual experience have demonstrated Ford's dependable performance and economy.

Schools have found, too, that Ford school bus safety chassis cost less right from the start. Many models are priced below all competitive makes.*

And it costs less to run a Ford school bus! Thanks to modern Short Stroke power and sturdy chassis construction, operating costs and "shop time" are reduced. Another important Ford plus is that all Ford school bus chassis meet or exceed National Education Association requirements.

Add it all up—you'll find Ford school bus chassis do cost less! Contact your Ford Dealer . . . let him show you why America's schools buy more Fords than any other make.

For '57, Ford offers seven chassis models in five wheelbase lengths to meet your exact needs.

Model B-600 (shown) is available with 192- or 220-inch wheelbase for up to 54-passenger bodies.

*Based on comparison of manufacturers' suggested retail prices

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NEW "flat face" cowl permits any bus body to be mounted quickly and at low cost. Clutch and brake pedals are modern suspended type for extra driving ease!

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City, Fla.; Mobile, Ala.; Moss Point and Natchez, Miss.; Bastrop and Springhill, La.; Camden, Pine Bluff and Columbia County, Ark.; Livermore Falls, Me., Ticonderoga and Corinth, N. Y. and York Haven, Pa.

Details about these projects, their origins and administration, were published in the April issue of THE School EXECUTIVE.

Desk for Billie Wins Award At American Film Assembly

NEW YORK—The NEA's centennial film, A Desk for Billie, won a Golden Reel award in the fourth American film assembly held here April 22-26.

It was one of 11 films entered in the education category.

This annual non-theatrical motion picture convention was held under the auspices of the Film Council of America.

Other Golden Reel recipients in categories appropriate for school or adult education use were:

City (Charles Guggenheim & Assoc.).

Junior & senior high school natural sciences: Village of Spain (Churchill-Wexler Film Productions).

Junior & senior high school arts & crafts: Indian Artist of the Southwest (Cine' 937 Productions).

Preschool through intermediate classroom: Gallant Little Tailor (Contemporary Films, Inc.).

Safety: The Hot Rod Handicap (Richfield Oil Corp.).

Recreation: A Place for Growing (Boys' Clubs of America, Inc.).

Teacher Standards Meeting To Hear S. R. Editor

Washington—Norman Cousins, editor of the Saturday Review will address the National Conference on Teacher Education and Professional Standards here on June 25. The five-day convention will conclude June 29.

Over 1,000 professional educators and lay leaders from all over the

How do your projector maintenance costs compare with these averages?

Recently we surveyed a number of 16mm-projector owners and service shops to learn how much it costs to maintain Kodascope Pageant Projectors in top working order.

We found—as you, too, will find that Pageant maintenance costs are surprisingly low.

Typical case histories show dollars and cents of low-cost Pageant Projector maintenance

- 1. It takes only 57 minutes per year, on the average, to service each of the 55 Kodascope Pageant 16mm Sound Projectors used by one large Midwest school system. Parts cost just \$1.45 per year per unit, average. Average yearly use per projector, 720 hours! ! !
- 2. No annual repairs on 8 Pageant Projectors for three years is the report from a New York business firm with a fleet of 15 machines. The remaining 7 units needed only minor repairs during the three year period.
- 3. A fleet of 38 Pageants, operating about 500 hours per year, averaged only \$2.47 per year per unit for replacement parts! Service time per year, one hour 30 minutes.
- 4. After 855 hours' use per year, average, replacement parts cost just \$3.03 per Pageant Projector. Labor per

unit, one hour 15 minutes average. This is what one large Southwestern dealer and service shop reports after keeping records for two years.

5. 1500 hours with no time lost for repairs—that's what a West Coast coordinator of A-V services reports. His school system owns six Pageant Projectors, which have cost less than \$10.00 to maintain—about \$1.67 per machine.

WHY PAGEANT COSTS ARE SO LOW

The simplicity of Pageant Projector design is one major low-maintenance factor. A Pageant Projector has fewer working parts to wear out, fewer to clean or adjust. And it runs at lower pulldownshaft speeds; less vibration and wear is the result.

Pageant Projector simplicity makes minor maintenance jobs simpler, too. Parts are easy to get at.

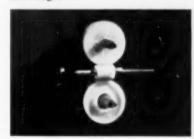
NO OILING NEEDED

You never have to oil a Pageant Projector. It is permanently lubricated at the factory. This completely eliminates the most common cause of projector breakdowns—over- or underoiling.

READY WHEN YOU NEED IT

Why should you miss showing a good film at the right psychological moment because of needless projector breakdowns? Your trouble-free Pageant is ready to roll any time you need it.

Ask your Kodak A-V dealer for a free demonstration. See Pageant Projector picture brilliance and sharpness. Hear the superb sound reproduction. Try the simplified setups. Choose from three basic models designed to fit your needs and budget.



No more ailing warries; nylon gears, oil-impregnated bearings, etc., give you permanent prelubrication.



For complete service eccessibility, the amplifier and projector mechanism are easily removable.

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Solve the pupil wraps problem efficiently with
Wallmount Coat and Hat Racks. Mount on
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Double hat shelves and double row of spaced
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make continuous racks to fit any space or
capacity requirements.

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Identical to Chalkrobe but with pin-up cork board instead of "Chalkboard". These units permit complete flexibility in use of floor, or wheeled to floor, or wheeled about on casters. Hold wraps out of the way in orderly and efficient manner.



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Matching units for Wallmount. Keep over-shoes off-the-floor in an orderly manner.

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nation are expected to attend this

Major topics of the conference are implications of the changes ahead for technology and society, quality of teaching services required by the changing times, and role of personnel policies and practices in securing and retaining competent

Other notables who will speak at the conference are Lawrence G. Derthick, U. S. Commissioner of Education and L. D. Haskew, dean, College of Education, University of

NEA president Martha A. Shull will lead some of the conference's general sessions. Others will be conducted by J. W. Mauker, president, Iowa State Teachers College. Dr. Mauker is chairman of NCTEPS.

Russell New Secretary of School Policy Group

Washington-James E. Russell will succeed Howard E. Wilson as secretary of the NEA Educational Policies Commission. He will assume his new duties July 1.

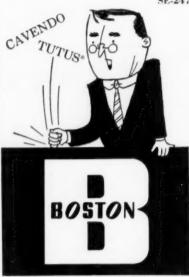
At present Dr. Russell is associate professor of education and assistant



Russell

executive officer of the Citizenship Education Project, Teachers College, Columbia University.

He will become the commission's third secretary since its formation in 1935 jointly by NEA and AASA. The group is composed of 20 leading edu-



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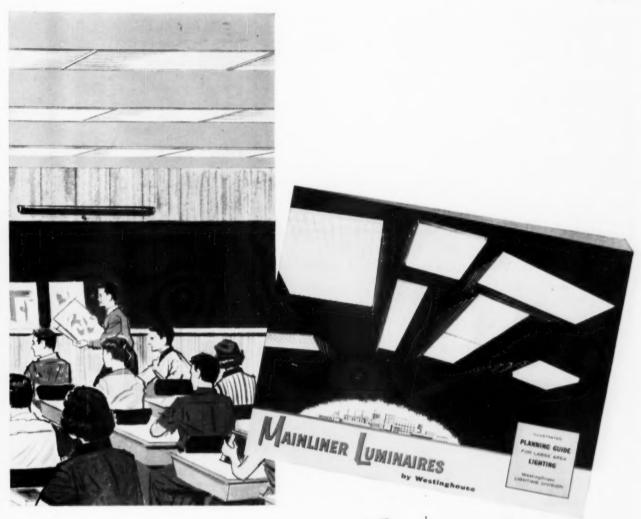
Leading educators — juvenile psychologists — vocational guidance authorities now all agree — improper lighting, even on occasions, is fast becoming identified as one of today's foremost deterrents to normal student aptitude!

Moreover, lighting difficulties appear to be growing more and more pronounced, as over-crowding continues to tax inadequate facilities!

As a result, proper school and classroom lighting is now receiving a marked increase in emphasis!

Satisfactory relighting of older school properties has become an *obligation*! Scientifically planned lighting of new school buildings is *mandatory*!

Westinghouse remains ready to supply every possible aid to everyone responsible for proper school lighting conditions!



Newest, Advanced-Type AINLINER UMINAIRES constitute ideal medium for Planned Lighting or Relighting

Mainliner Luminaires incorporate every engineering, design and construction advancement proved most satisfactory for large-area lighting by Westinghouse!

They provide the most excellent light distribution possible from a relatively low-brightness source. And they permit remarkably low application, installation and maintenance costs, for the results obtained.

These Mainliner Luminaires come in surface-mounting and 3 recessed-mounting types — in 6 various sizes — and 13 different shielding styles.

They present opportunity for almost limitless numbers of distinctive and appealing, new ceiling designs and patterns. They have a most ready application for schoolrooms with modern, low ceilings!

They assure every classroom of maintaining a bright, cheerful, progressive atmosphere — most conducive to good learning! — most pleasing to parents, pupils and teachers alike!

Journal 1.



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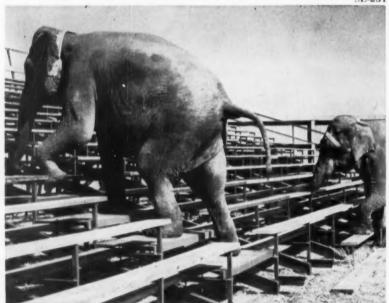
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cators who prepare and disseminate statements of major educational policy.

In his new position Dr. Russell will direct commission study and surveys, manage meetings and arrange public presentation of the commission's policy proposals.

Dr. Wilson, commission secretary for 5 years will become dean, School of Education, University of California, Los Angeles.

Cost of Attending College Doubles Since 1939-40

Washington—The amount that students spend in attending college has doubled since 1939-40, Lawrence G. Derthick, Commissioner of Education, reported recently in announcing preliminary findings of an Office of Education survey.

Commissioner Derthick said the expenditure for full-time undergraduate students attending public college this year averages about \$1,500. A student in private college pays about \$2,000.

The average expenditure in 1939-40 was \$747 for a student in a public college, and \$1,023 for a private college student.

Cost breakdown

The Office of Education survey is the first comprehensive study of how much it costs an undergraduate student to go to college, and where he gets the money.

Expenditures per students ranged from \$200 to \$5,500 per year. For the middle half of the group surveyed, the range was from \$815 to \$1,708.

Figures include both living costs, such as clothes, room, board, travel, recreation or entertainment; and educational costs, including tuition, fees, books and instructional supplies and equipment.

The base year for the survey was 1952-53. Projections for 1957 have taken into account the Bureau of Labor Statistics' cost-of-living index



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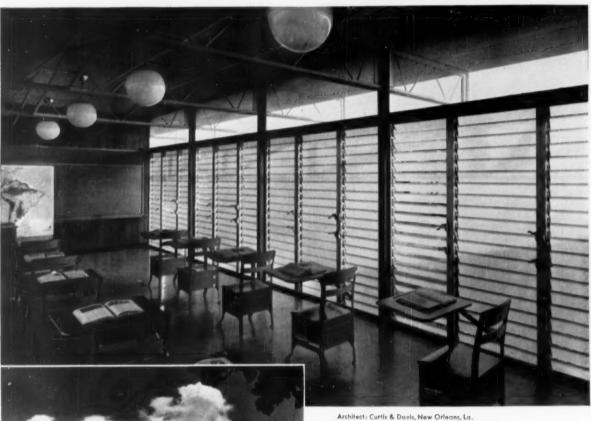
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Architect: Curtis & Davis, New Orleans, La. Glazing Contractor: H. Flaumhaft Co., New Orleans, La.

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and also the rise in tuition, fees and other college costs.

At tax-supported institutions in 1952-53, living costs represented five sixths of the total, and at private institutions, two thirds, the survey revealed. Average tuition and fees at public colleges was about \$175 and at private institutions about \$550 in that year.

Students living with their parents at that time spent an average of about \$1,000 a year. It cost about \$350 more for a student to live in some other private home or dormitory, and another \$300 to live in a club, fraternity, or sorority.

Ten percent of the men students and 3 percent of the women were from families with annual incomes of less than \$3,000. The average family in the lowest family income group devoted about one fifth of its income to its child in college. In the higher income groups, the average was less than one tenth.

Families supplied 41 percent of the money for the college students: 29 percent came from students' own savings; and students earned 17 percent after entering college.

Other sources were scholarships, 5 percent; veterans' and vocational rehabilitation programs, 5 percent; loans, 1 percent; and miscellaneous, 2 percent.

Two-thirds of the men students worked, earning an average of \$486 a year. Half of the women worked, averaging \$265.

More than 15,000 students from 110 colleges were included in the random sample for the survey. It was conducted by Ernest V. Hollis, Director of the College and University Administration Branch of the Office of Education.

Wright Heads Studies Committee for AACTE

Washington—Wendell W. Wright, dean, School of Education, Indiana University, Bloomington, has been named chairman of the Committee

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A unit that makes light work of floor maintenance and encourages a special pride in a neat appearance! The sturdy One-12 may be easily moved to form large working areas or grouped in a variety of ways. In sizes for all twelve grades, the One-12 gives maximum working area with minimum space requirements. Shown with Fibre-plastic top size 18" x 30". Also available with solid maple or birch top. Metal Colors: Como Blue, Coppertone, Sky Blue, Seafoam Green, Light Taupe. For Competent Assistance, Complete Details, Ask Your State AD Representative

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A push-button switch on the guardrail gives the user complete control of the lift. Used indoors and out for an almost endless variety of jobs. Six different models available for maximum reaches of 19 to 42 feet.

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on Studies, American Association of Colleges for Teacher Education.

Dr. Wright succeeds J. Martin Klotsche, provost, University of Wisconsin, Milwaukee, whose term expired this year.

Three new appointees of this Committee also have been named, reports Edward Pomeroy, executive secretary of AACTE. They are Dennis C. Cooke, president, High Point College, High Point, N. C., appointed for a fouryear term: Lawrence Davis, president, Agricultural, Mechanical and Normal College, Pine Bluff, Ark., appointed for a one-year term; Donald R. Watson, dean of instruction, San Diego State College, San Diego, Cal., appointed for a two-year term.

Future Teachers of America To Meet in Washington

WASHINGTON-The third annual Future Teachers of America Work Conference will be held here June 22-25.

About 100 student leaders planning to become teachers will attend. The event is sponsored by the National Commission on Teacher Education and Professional Standards.

The workshop will develop plans for national, state and local FTA groups. State TEPS chairmen, FTA consultants, and representative club and chapter sponsors will work with students on the plans.

New Office Directory Lists 1,886 Colleges, Universities

WASHINGTON-The Office of Education has released its new annual Education Directory, Part 3: Higher Education, which lists a total of 1.886 institutions.

Included for the first time in this edition is the calendar system on which each institution operatessemesters, quarters, or other units.

The 1956-57 listing is larger by 31 than last year's total and 187 more than the 1940 figure. The new directory includes institutions offering at least 2-year college-level programs and meeting certain other standards.

The largest number of institutions of higher learning is reported for New York State-153.

Next in order are: California, 138; Pennsylvania, 117; Illinois,

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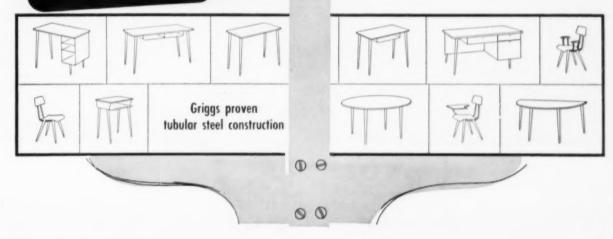
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Choose according to your needs . . . the RCA two-case Senior, powered for effective performance where large audiences gather, or the 400 Junior in its compact, single case. Your RCA Audio-Visual Dealer has details, brochures, gives demonstrations. They're all yours without obligation if you call him . . . you'll find his number under "Motion Picture Equipment and Supplies" in the Classified Telephone Directory.



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er offered above. It also supplies facts about the PAGE localized engineering and execting service that assures highest grade workmanship and lasting satisfaction. Page Fence Association members, located in more than 100 cities, are listed in Folder DH-26. See that list for name of member nearest you.

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SPOTLIGHT

102; Texas, 96; Massachusetts, 77; Wisconsin, 63; Ohio, 62; Michigan and North Carolina, 55 each; Missouri, 53, and Iowa, 50.

More than one-third, or 744 of the 1.886 institutions, are under denominational control. This includes 474 Protestant colleges and universities: 265 Roman Catholic; and 5 Jewish.

Under private control are 481; public control, 661, including 282 under district or city: 369 under state, and 10 under federal control.

Coeducational institutions number 1.414. Of the remainder, 223 are for men and 249 for women.

The Ph.D. or equivalent degree is granted by 191 of the institutions. Over 500 institutions provide programs of less than 4 years.

The directory was prepared by Theresa Birch Wilkins, of the Division of Higher Education, Office of Education. It can be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, at 65 cents a copy.

Delinquency Hearings Held

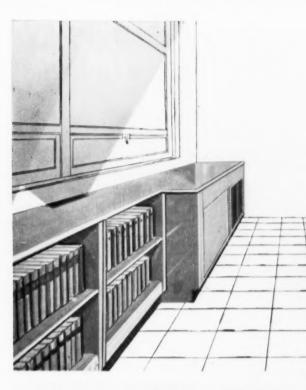
A subcommittee of the House Education and Labor Committee under the direction of Representative Carl Elliot (D.-Ala.) is holding hearings on legislation to help the states combat juvenile delinquency.

Conant to Head EPC. 6 Others To Serve

WASHINGTON-James B. Conant and six others have been named to serve on the Educational Policies Commission. Dr. Conant, ex-ambassador to West Germany, is a former president of Harvard University.

The EPC prepares and disseminates policy statements for the NEA and the AASA. It has 16 members.

Other new Commission members are Edgar Dale, professor of education, Ohio State University; Wilma Morrison, The Oregonian, Portland; Gerhardt E. Rast, superintendent of schools, Westport, Conn.; Wilbur



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Schramm, department of communications and journalism, Stanford University; Benjamin C. Willis, general superintendent of schools, Chicago, and Paul Van Ness of Newark, New Jersey.

Conant's appointment is for a three-year term. He will fill the vacancy caused by the resignation of James R. Killian, Jr., president, Massachusetts Institute of Technology.

Four-year appointments were accepted by Dale, Morrison and Willis, while Rast and Schramm will serve two-year terms.

Mo. Supt. Cited for Service To American Education

St. Louis—Robert S. Gilchrist, superintendent of schools, University City, Missouri, was cited for "outstanding service to American education."

The award was made in March at the Association for Supervision and Curriculum Development Convention in St. Louis, Mr. Gilchrist is ASCD president for 1956-57.

The honor was bestowed by the School of Education, New York University, where Gilchrist received his Ph.D. degree in 1930. He is an alumnus of Colorado State College of Education.

Illinois Workshop Features School-Community Relations

Urbana, Ill.—A new style summer workshop for school administrators will be conducted by the College of Education at the University of Illinois.

Under the new plan, practicing school executives will study along-side promising beginners from their school systems for the first week of the four-week program. The neo-phytes will follow through for the balance of the session, according to workshop chairman, Van Miller, professor of education at the College.

Theme of the workshop is "School and Community." Dr. Walter D.

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Educational Airlift



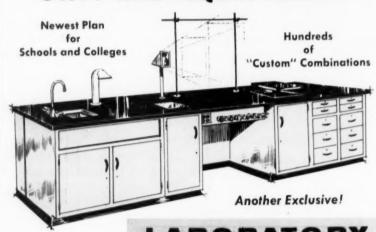
Miss Jo Kress, an economic geography teacher, and her 150 8th-graders from Imperial, Pa., flew to Akron, O. recently to watch industry in action. Miss Kress called their visits to Goodyear Tire and Rubber Co. and the Akron Beacon-Journal "practical and realistic" education.

Cocking, editor, THE SCHOOL EXEC-UTIVE, will be the featured consultant during June 18-21. He will lead discussions and conferences on "The Role of School Administration in Community Improvement" and "Community Study and Analysis." During the remaining three weeks, workshoppers will study related top-

ics with the aid of other experts. These include Dean B. L. Dodds, H. M. Hamlin, Harold C. Hand, M. R.

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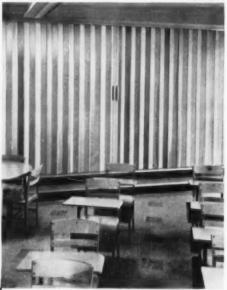
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Sumption and Raymond Young, all from the University of Illinois.

Eric H. Johnson, director, Illinois Curriculum Program, will also serve as a workshop consultant. Dr. Johnson served recently as coordinator of technical services for the pre-White House Conference in Illinois.

Workshop members will develop project plans based on information from their own school system and community.

Propose Formula to Solve Science Teacher Shortage

Washington—Action not argument is needed to meet the scientific manpower shortage, says the National Science Teachers Association.

The April issue of the NSTA Journal, The Science Teacher, recognizes the large and growing demand for scientific personnel. But "constructive progress" does not come from "caustic criticism of the schools, the teachers, and America's youth."

The NSTA remedy is threefold: revise and strengthen school science programs; improve salaries and teacher employment conditions, and spur citizens to promote interest in science and eliminate impediments.

Science enrollments, the supply of science teachers and action steps to improve science education are detailed in the article, "High School Science Teaching." Reprints are available from NSTA at 1201 Sixteenth St., N.W., Washington, D.C.

Elementary Principals Need More Preparation—McNally

CINCINNATI, Ohio—Too many elementary principals are merely overpaid clerical and underpaid professional employees, according to Harold J. McNally, professor of education, Teachers College, Columbia University.

He addressed the annual meeting of the NEA Department of Elementary School Principals here in March.

McNally observed that most elementary principals still come into

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Synthetic Cleaner now contains HCP!

BLUE BLAZES, the powerful synthetic cleaner, has been made even more powerful by the addition of HCP. The HCP ingredient activates BLUE BLAZES to provide instantaneous penetrating action.

How does it work? BLUE BLAZES, with HCP, immediately attacks dirt, oils, and any other foreign material that may be on the floor.

It penetrates grime, surrounds the particles, lifts them off the floor, and holds them in suspension until removed with a wet pickup vacuum, squeegee, or mop.

As gentle as rain water. It's completely safe, too. Though it overpowers dirt and grime in an instant, BLUE BLAZES with HCP is chemically neutral (pH of 7 in solution).

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Works in hard water or soft. BLUE BLAZES with HCP works in any kind of water... cold or hot, hard or soft. This makes it ideal for all phases of floor maintenance.

Because BLUE BLAZES is a free rinsing cleaner, no hard water scum or soap residue is left behind to dull the beauty of your floors.

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ing no maintenance; used on small table. Developed by Bausch & Lomb after many years' research by Purdue University, University of Chicago, administrators of school health programs and medical and optometric associations. Mail coupon for illustrated brochure.

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their jobs by happenstance rather than by design. "Even if they had time," he charged, "many wouldn't know how to proceed in providing instructional leadership."

Proper preparation for the elementary principalship, said McNally, requires at least two years of graduate study. He called for higher and more flexible certification standards by states and more in-service education.

CONFERENCE CALENDAR

JUNE

- 15-20, centennial celebration, United Business Association, Dallas,
- 25-29, 12th annual national conference, National Commission on Teacher Education and Professional Standards, NEA, Washing-
- annual national convention, National Association of Educa-tional Secretaries, NEA, Philadel-
- 30-July 6, Centennial Convention. NEA, Philadelphia.

IIII.Y

- I, annual summer meeting, National Science Teachers NEA, Philadelphia. Teachers Association,
- 4, summer meeting, Department of Rural Education, NEA, Philadelphia.
- 1-4 annual meeting, National School Relations Association, Public Philadelphia,
- 8-13, 4th annual seminar, National School Pub'ic Relations Associa-tion, New York.

AUGUST

19-24, annual conference, National Association of Journalism Direc-tors, NEA, Chicago.

OCTOBER

- 11-12, annual meeting, Department of Rural Education, NEA, Denver.
- 13-16, 12th national conference, County and Rural Area Superin-tendents, NEA, Denver.
- 20-24, 43rd annual convention, Association of School Business Offi-cials, New Orleans.
- 22-25, 40th annual meeting, American Dietetic Association, Miami, Fla.





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news from the capital affecting education

HIGHER EDUCATION this month holds top position—give or take a little in the Capital and in the programs of organizations quartered here. Pronouncements and activities are focusing on financial aid to students.

The Educational Policies Commission, policy-advancing organ of the NEA and the AASA, has issued a comprehensive 152-page statement titled Higher Education in a Decade of Decision, in which who gets educated for what and for how much are prime topics.

Commission commentaries on student aid reflect a rising tide of public opinion on scholarships. Recognizing that extensive aid of this kind is needed, the Commission proposes the application of certain criteria in the administration of such a program. Scholarships should be awarded on the basis of student ability rather than for specific vocational interests.

Limiting awards to applicants from a given locality, or bearing on a given family name, or aiming at a particular career, are characterized as handicaps to an adequate scholarship plan.

"Unrestricted funds with which to find and educate top quality people are most desirable... the principle of award on the basis of merit, and stipend on the basis of need should be followed," the report continues.

The Commission pays tribute to the states that grant scholarships from tax funds "as long as they are not a substitute for full support of public higher education in the general interest and at the public cost."

Without making an unequivocal statement on federal aid to higher schools, the Commission states—with some reluctance perhaps—that "unless states and private donors are willing to increase very greatly their expenditures for higher education, it seems likely that increased federal support will be necessary to meet the expansion emergency of coming years."

In keeping with this principle, the Commission believes that "when other student aid sources are exhausted, it may be necessary to develop large-scale federal scholarship programs." Calling attention to other types of indirect support to the colleges and universities such as contract research and services, the policy makers state that the role of the Federal Government in the support of higher education needs "clarification."

At the moment, they urge that combinations of scholarship grants, loans and work opportunities should be systematically developed to make available opportunity for higher education to more students who are qualified.

In the Meantime, organizations devoted to the problems of advanced education polled their members on the question of federal scholarships. Among them are the American Council on Education; the American Association of Land Grant Colleges and State Universities; and the Association for Higher Education.

This NEA department, whose study is now completed, finds that 83.5 percent of its members participating in the poll favor in principle a general federal scholarship program. Nearly 14 percent oppose it.

Here are some of the suggestions for administrative procedures made by members: award scholarships to all who are qualified for college work, regardless of financial status; redefine "need" so that grantees receive all they need; include freedom to choose college and course of study; require reasonable scholastic standards; make payments directly to the institution, not to the student.

The American Council on Education finds that 78 percent of those who belong to the Council favor federal scholarships. Council members voted down "special field" scholarships. Their main reason, has been shared by other groups, that the availability of scholarships, rather than the interest and special ability of the student, is a poor motive for choosing a college field.

Objection to the principle of federal scholarships was based partly on experience in misdirection of students into courses for which they were not suited. A large number of those taking a stand against federal scholarships, however, feared that measures accelerating enrollment are not wise when facilities and buildings are inadequate to care for it.

MEANS TO OVERCOME the building shortage through federal college housing loans are suspended at present while Congress debates a raise in interest rates for these loans, from 27/8 percent to 31/2 percent. The Administration's proposed housing act for 1957, calling for an increase of \$150 million to bring the total borrowing authority to \$900 million, has been reported out of the House Committee on Banking and Currency. It has not yet been passed in the House, nor been reported out by the Senate committee in charge.

MEANWHILE FEDERAL aid involving students in limited fields goes on apace through the National Science Foundation. Since the inception of that program in 1951, awards have been made in a sum of nearly \$50 million for the support of basic research in the sciences, exchange of scientific information, and training of science teachers.

Not all proposed and activated projects for higher education, however, are receiving official support. The House demonstrated its great determination to economize by wiping out the President's budget request for \$200,000 for his Committee on Education Beyond the High School. Unless the Senate restores the funds and converts the House, the Committee seems certain to go out of business by the summer.



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MODEL 644 Seat, thickly padded, uphol-stered Plastelle enamel.



recent publications for the administrator's bookshelf

Philosophic-Mindedness in Educational Administration

By Philip G. Smith, School-Community Development Study, Monograph Series No. 5, Ohio State University Press, Columbus, Ohio, 1956, 129 pp., \$2.00.

This book is a report of the results of a research project conducted as a phase of the CPEA studies at Ohio State University. A philosophic-minded individual is described as one who can claim comprehensiveness, penetration, and flexibility as personal traits. Specific dimensions are given to each of the characteristics; those administrators who participated in the study were evaluated to determine their patterns of behavior.

The conclusion is that the administrator who is more philosophically-minded tends to be a more successful administrator. The report is a challenging analysis that reinforces many of the developments now evolving in the preparation programs for school administrators; but it also acknowledges the fact that it raises far more questions than it answers.

—ALFRED SCHWARTZ
School of Education
University of Delaware
Newark, Delaware

Growth Toward Freedom—A Challenge for Campus and Community

By William W. Biddle, Harper & Bros., New York, 1957, 167 pp., \$3.00.

This is an aggressively stated educational philosophy of "inspiring selfhelp." It recommends applying knowledge conserved and advanced by our colleges and universities to the requirements of the larger community.

For Professor Biddle, this seems to mean more learning activities grounded in the community, more direction of the learner by himself and by the members of his learning group, more emphasis upon problemsolving, and more attention to action steps following verbally presented solutions.

The illustrations are chiefly from an evaluated program at Earlham College where these educational factors are used to teach the relationship of concepts to actions, *i.e.*, of college to community, in the old sense.

—JACK F. KIMBALL

Dean of Students

State University Teachers College
Oneonta, New York

The Public Junior College

Edited by Nelson B. Henry, Part 1, 55th yearbook of the National Society for the Study of Education, The University of Chicago Press, 1956, 347 pp., \$4.00, cloth; \$3.25, paper.

Since 1940 public junior college enrollment has jumped 170 percent. There are almost 350 such institutions serving over half a million students. Another 260 such schools are private.

Fifteen specialists in post-high school education collaborated in authoring an appraisal of the public junior college movement. They describe its role and status, and indicate the basis for guiding its future development.—MJP

Architecture for Adult Education

By Commission on Architecture: Adult Education Association, Chicago, Illinois, 1957, 74 pp., \$2.00.

This book is designed for both technicians and laymen who are planning buildings for the many-sided activity called adult education. Today, adult education takes place everywhere and facilities for this activity, similar to the ones found in school buildings, are springing up in many different places—industry, hospitals, settlement houses, churches, libraries, com-

munity centers and, in ever increasing numbers, in elementary, secondary and college buildings.

It includes carefully selected floor plans, elevations and photographs of completed or projected buildings, which evolved because of actual needs and which fulfill specific requirements.

This pamphlet dwells briefly on how to organize and plan needed facilities through a coordinating council and community committee. Selecting the architect, financing and management are considered. Clearly emphasized throughout is the need for the program and purposes of adult education which must proceed and control building design.

-DONALD J. LEU
Associate Professor of Education
Michigan State University
Eas' Lansing, Michigan

High School Personnel Work Today

By Jane Warters, Second Edition, McGraw-Hill Publishing Co., Inc., New York, 1956, 358 pp., \$4.75.

High school youth need the guidance of mature adults who understand their problems and needs if they are to make the most of their educational opportunities. Basic principles essential to successful guidance, effective techniques and practices, and trends in American schools are described in this volume.—MJP

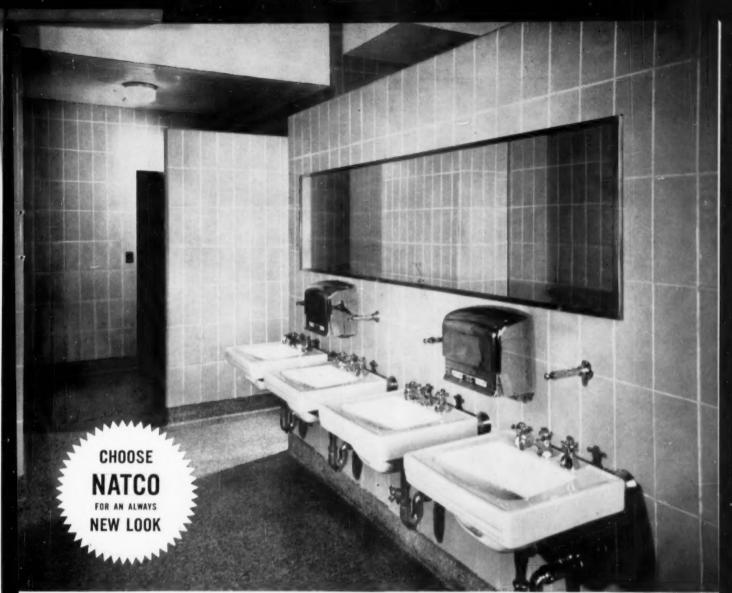
also noted ...

Education 2000 A.D.

Edited by Clarence W. Hunnicutt (Syracuse University Press, 1956, 321 pp., \$3.00). Eighteen lectures on the future of secondary education.

Psychology in the Classroom: A Manual for Teachers

By Rudolf Dreikurs, M.D. (Harper & Brothers, New York, 1957, 237 pp., \$3.75).



Cleanliness of school and college buildings is often judged in the washrooms. Here is a typical Natco Ceramic Glaze Vitritile installation in the new Liberal Arts Building at St. John's University. Architect, Henry V. Murphy, Brooklyn, N.Y. General Contractor, Veit & Company, Brooklyn, N.Y.

Ceramic Glaze Vitritile combines color, durability and cleanliness at St. John's University

The new Liberal Arts Building at St. John's University at Hillcrest, Long Island, New York, is typical of the way modern architects and builders employ Natco Ceramic Glaze Vitritile to achieve both permanence and beauty at moderate cost.

Natco Vitritile combines two important features in a single building material. It makes sound, fire-proof structural walls and partitions, plus a colorful wear-resistant interior finish in a single operation . . . at one cost.

Ideal for washrooms, cafeterias, classrooms, corridors, workshops and gymnasiums, Natco Vitritile will withstand the onslaught of youth without becoming marred or worn. Years after installation it will retain its new look because inexpensive washing with soap and water is all the maintenance it ever needs.

Natco Vitritile can be adapted to virtually any architectural design. It is manufactured in a complete range of shapes and fittings to meet all construction requirements. Furnished in nominal face sizes—"6T" Series (5½" x 12"), "4D" Series (5½" x 8"), in 2", 4", 6" and 8" wall thicknesses and "8W" Series (8" x 16") in 2" and 4" thicknesses.

Finally, Natco Vitritile is available in 21 standard colors (including the new speckled glaze) to permit selection of the shade needed for pleasing appearance and proper lighting.



NATCO CORPORATION

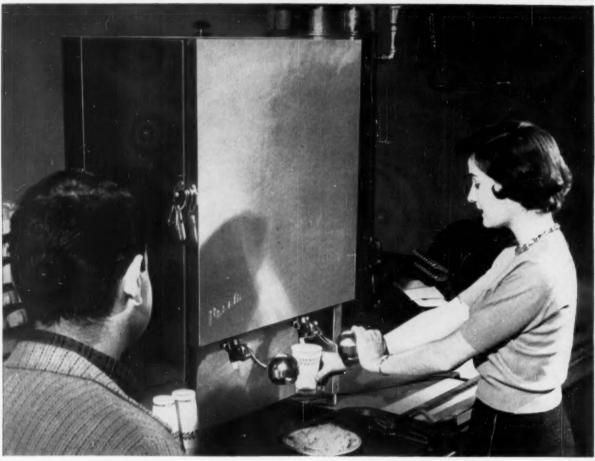
327 Fifth Avenue, Pittsburgh 22, Pennsylvania

Location of Natro Branch Sales Offices

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In Canada: Natco Clay Products Limited, 57 Bloor Street West, Toronto 5, Ontario



"I don't see how you can operate a cafeteria without milk dispensers,"

says E. E. PYLE, National Food Management Service

Mr. Pyle manages the Duquesne University cafeteria, in Pittsburgh, Pa., for National Food Management Service, a subsidiary of Bickford's, Inc. He says, "I don't see how you could operate without milk dispensers. They eliminate individual containers and all the labor that goes with them.

"Our milk is always fresh and cold, and the students like the better flavor. The dispenser is easy to service, and it sure helps us to sell a lot of milk."

National Food Management Service has found that dispensers are definitely more profitable and easier to handle where volume milk sales exist.

You'll see these gleaming Stainless Steel milk dispensers in cafeterias and restaurants all over the country. They help sell more milk, better milk, at less cost, with less work than any other method. For the complete story, get in touch with your local dairy, or write United States Steel, 525 William Penn Place, Pittsburgh 30, Pa.

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II NITED STATES STEEL

How About A School Lunch Workshop?

by GLADYS H. ROEHM

Associate Professor of Home Economics Montana State College Bozeman, Montana



The author (right) presents award to Sigrid Peterson at a recent workshop for her 17 years of service to the school lunch program at Hardin, Montana.

HREE YEARS AGO, I asked L. L. Brown, director of Montana school lunch programs, if he would like to have a school lunch workshop at Montana State College.

The answer was "Yes, indeed!"
And so, cooperative planning began
between home economics teachers
and housing personnel at Montana
State College and the school lunch
staff of the Montana Department of
Public Instruction.

We thought that it would be fine public relations for the college to bring cooks in the state's school lunch program to the campus for an intensified two and one-half day training program. Too, it might help the cooks realize that they play a vital part in the nutrition education of our young people.

The state lunch director knew that the workshop participants needed to know about sanitation, menu planning, nutrition, keeping records, using surplus foods wisely and economically, and use and care of equipment in the lunchroom kitchen. State college personnel could provide this information. It was logical, therefore, that we work together in conducting workshops to strengthen the school lunch program in the state.

We have tried many teaching devices at our workshop. Movie films, slides, socio-drama, skits, posters, demonstrations, talks, general and panel discussions and speakers—all have been used to illustrate menu planning, use of surplus commodities, nutrition, use of equipment, storage, decorating the lunchroom and sanitation.

One very effective demonstration was developed by a member of the Department of Bacteriology. Six agar culture plates were prepared and brought to the opening session.

These plates were then inoculated with (1) a hair from a woman's head, (2) fingernail dirt, (3) a finger placed in the mouth and then rubbed over the cultures plates, (4) a swab from a drinking glass, (5) a swab from a tasting spoon and (6) a culture from a "big" sneeze.

The cultures incubated for the required length of time, and were then displayed and examined. A short talk was given on some of the types of bacteria on each plate and their potential danger to children.

We have always had a commercial food demonstrator on the program. From the evaluation sheets we have found that these demonstrations give the cooks many new ideas for menu planning and for use of school lunch equipment. The workshop participants enjoy watching someone else do the cooking for a change!

Surplus demonstrations

We always try also to have a demonstration in which foods on the surplus list are used as much as possible. We have had home economics demontrators from the Dry Milk Institute, the Fish and Wild Life Division of the U. S. Department of Agriculture, and the National Baking Institute.

Edith Foss, state school lunch nutritionist, travels across the state. She finds that much use is made by the cooks of the information obtained from this part of our program.

Publicity for the workshop, which means contacting cooks and superintendents of schools, is carried out by the state office through the monthly News Letter. Individual letters are written to the superintendents informing them of the workshop, and requesting that the cooks from their schools be asked to attend.

This has had good results. The first year we had 85 cooks at the workshop. Most of them paid their own way. Last year we had 202 participants, and most of them had all or part of their way paid by their school boards. This recognition of the cooks as part of the educational system has been good for their morale.

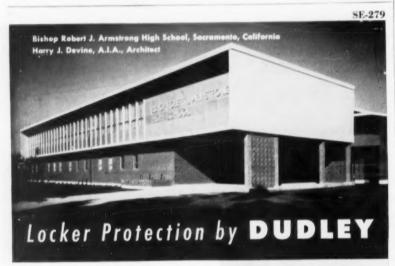
The surplus food luncheon has always been a challenge to us here at the college. Through its menu, we have tried to show new and interesting ways to serve some of the government surplus commodity foods. The cooks like the new recipes and are using them in their local lunch programs.

Luncheons for learning

The surplus food luncheons are cooked by the Student Union staff and served cafeteria style to the workshop participants. We usually have several lines—to show the women what can be done to keep food warm and appetizing with homemade or inexpensive equipment. Copies of the recipes are distributed at the meal.

We try to give as many of the participants as possible specific jobs to do at these luncheons. Some decorate the tables for the banquet. Others serve on panels and present ideas for improving school lunch meal service and kitchen work. Many of these have been splendid aids for work simplification and lunchroom improvement. Some of the participants also help serve the surplus food luncheon.

At the workshop last year, those attending were split up into six



Outside corridors are among the features of this beautifully modern, two-story brick and concrete high school. Dudley locks were specified by the architect.

Gymnasium lockers are protected by 630 master-keyed P-570 Padlocks. The "home" lockers for students and teachers use 872 builtin, master-keyed S-540 Locks. Both series of locks are keyed to the same master key and combinations are recorded in the Dudley Master Chart. Locker
Problems?
Ask the man
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The Dudley representative in your area will gladly work with you to solve problems of locker administration and control. This expert counsel is an exclusive Dudley service, available to you without cost or obligation of any kind.



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says M. P. Duke, President, Duke Manufacturing Co.

Your success depends on the food you serve. Dried-out, overheated, discolored food hurts your reputation and your chances for a profitable volume. You can protect your reputation and your profit with a modern Thurmaduke Waterless Food Warmer.

Thurmaduke guarantees perfect food storage. Thurmaduke has more efficient Selective Heat Control for each section than any other food warmer made. Foods like this roast turkey, which requires a temperature of 145°, mashed potatoes, 125°, or thin gravy and soups, which require a temperature of 190°, can be stored at the exact temperature each requires. Each section is fully insulated on all sides and bottom to prevent heat passage between sections. This means Thurmaduke has more accurate temperature control for perfect food storage.

Don't buy any food warming equipment until you have made a feature comparison with Thurmaduke. I personally guarantee the complete line of Thurmaduke Food Warmers to have more quality

features than any other made. Write me for complete information on Thurmaduke Food Warmers, Standard Sectional Cafeteria Counters, and a free Feature Comparison Chart. Meanwhile, ask your nearby Thurmaduke dealer to show you how Thurmaduke Waterless Food Warmers protect your reputation for serving fine food.





THURMADUKE

DUKE MANUFACTURING CO. . DEPT. No. 82 . ST. LOUIS 6, MO.

different study groups. About 40 minutes were devoted to each subject on the agenda. We had meetings on equipment, forms and commodities, menu and meal planning, nutrition, sanitation, and new fabrics for uniforms and curtains or draperies.

When she registered, each participant received a color identification tag. These colors indicated when and where classes for each of the six discussion groups were held. There was excellent participation in each group, which numbered from 30 to 35 members.

In addition to the six groups, there were three additional classes the next day, covering the topics of decorating for special days, good handling and job simplification. The latter was presented in skit form.

Gift for service

This year, at the banquet, Mr. Brown, state lunch director, presented a gift to each of three ladies who had served the longest in the school lunch program in Montana.

Sigrid Peterson of Hardin received recognition for her 17 years of service. Sayde Hoover of Fairfield, and Ella Rundle of Hinsdale received awards for 16 and 15 years respectively.

The commercial exhibits also form a very important part of our workshop. Manufacturers have been generous in displaying equipment and in giving door prizes to the participants. They contributed much to the success of the workshop.

The most important part of any school lunch workshop is planning for the next one. We have made it a practice for the staff to meet immediately following the closing session and go over mistakes and succession.

At the 1956 workshop, we were privileged to have Malcom McGilv-ray and Edward Delaney from the Marketing Service of the San Francisco and Salt Lake City U. S. Department of Agriculture offices aid us in planning. Helen Maughan, the Western area nutritionist for the federal department has helped us plan from the beginning.

Ideas for the future

At our most recent planning session, the state school lunch staff offered ideas for future programs. They agreed to do the publicity and handle registration at the 1957 workshop this month. Mr. Brown's state office force undertook to print the programs and assemble commercial and U. S. Department of Agriculture materials in the kits for the women at registration time. Miss Foss, the state school lunch nutritionist, agreed to contact commercial companies for educational and equipment exhibits for the workshop.

The federal officers offered advice and encouragement. College staff members planned the program, invited the discussion leaders, speakers and demonstrators, and arranged for housing, meals and recreation.

It sounds easy, doesn't it? But it means many hours of letter writing, conferences and phone calls to plan a program to help make our school lunch program function more actively and successfully in the lives of our children.



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FROM TOP TO BOTTOM a Westinghouse Water Cooler is built to take a beating year after year yet still look good and perform perfectly. With its non-breakable Stainless-steel Top...scuff-proof Bonderized Steel Cabinet...rugged, jam-proof Foot Pedal Control...a Westinghouse will stand up under strenuous school use where other coolers fail.

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sealed Refrigeration System assures extra years of trouble-free service.

MODERN SCHOOLS call for Westinghouse Water Coolers. Make your selection from 17 handsome models. Call your Westinghouse Water Cooler Distributor listed in the Yellow Pages. Or mail coupon today.

Westinghouse Electric Corp., Dept. 5E-6 Refrigeration Specialties Division Springfield 2, Massachusetts

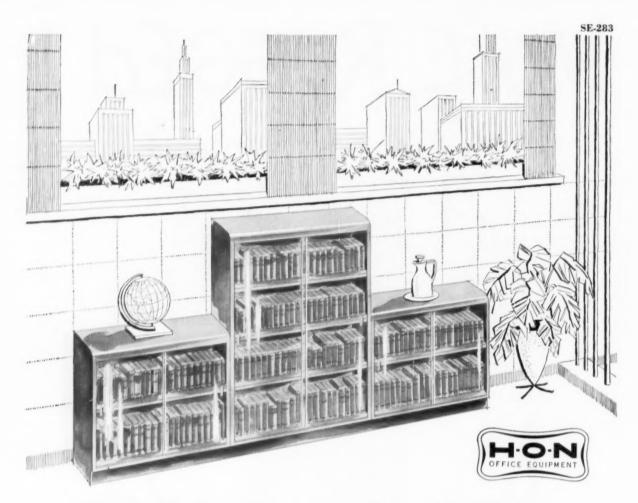
Gentlemen: Please send me your free booklet which illustrates how Westinghouse Water Coolers are "10 Ways Better."

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H-O-N Bookcases Are Popular all the Way Up to the Prexy's Office

In classrooms, libraries and in executive offices, H-O-N Bookcases provide usefulness combined with good styling, attractive finish and quality appearance.

Today you will find the H-O-N trade mark in many universities and colleges, and in the secondary schools of cities and towns around the country. Popular H-O-N equipment among these institutions are the handsome bookcases as illustrated above (30B and 48B Models.) The H-O-N Bookcase Line offers a wide selection of 12 different models in a choice of colors appropriate to any decor. Modular construction permits a variety of groupings as shown above; as room dividers back to back; around the walls; and in stacks. A matching duplicator cabinet is also available.

The 30 series is 30 inches high; the 48 series 48" high and both come in 18" or 11\(^5\)_3" depths. Open front models. Glass or steel sliding door models. Shelves adjustable on \(^1\)_2" centers. Doors operate with ease on quiet nylon rollers in steel travelers. Write to us for complete details. The H-O-N Co., Muscatine, Iowa.



MUSCATINE, IOWA

The key numbers (SE—) which appear at the head of each product review and advertisement in this issue are also listed on the yellow mailing card that is bound in this section. For further information on any product, simply circle on the card the key number for that product and mail the card to us.

SE-401 Closet Walls, Closet Fronts Available in Different Styles and



The new Brunswick-Mengel line of Closet Walls and Closet Fronts will save hundreds of square feet of valuable floor space, in many cases up to six depth inches per unit.

These modern and practical new units are available in a vast array of different styles and sizes, all designed to ease that overcrowded dormitory problem. Low-cost custom-built models are also available.

Each standard unit is shipped "knocked down" and unfinished so that it can be blended into the general decor of the room in which it will serve. The new Brunswick-Mengel closet walls can also be quickly installed and assembled without any wood studding, plastering or lathing.

The Brunswick-Balke-Collender Co., 623 S. Wabash Ave., Chicago 5, Ill.

Air Conditioner SE-402
For Year 'Round Ventilation



The Herman Nelson HerNel-Cool II classroom air conditioner features several basic improvements: the Draft/Stop system of controlling window downdrafts in wintertime; a new cleanable drain collector beneath the piping connections for the collection of condensate; larger end panels for easier accessibility for servicing; a modulating by-pass damper control, with a continuously cold-cooling element for better humidity and odor control; a complete range of color combinations; and a selection of attractive plastic low reflectance top coverings.

This is a complete, self-contained unit which operates automatically. The unit controls are arranged to automatically index to operate on summer air conditioning, or winter or mild weather heating, ventilating and ventilation cooling in accordance with the temperature of the supply water. No resetting of room controls, unit valves, or the adjustment of damper settings is required at any time.

AMERICAN AIR FILTER Co., Inc., Dept. PD, 215 Central Ave., Louisville 8, Ky.

Tile Remover SE-403
Automatically Strips Composition



The chisel, putty knife, blow torch and dry ice are things of the past when it comes to removing tile. The American Tile Remover now does the job automatically. Linoleum, asphalt, cork, rubber and vinyl tile may be removed by this method.

The machine has four oil-hardened steel blades, powered by a rugged ½ hp motor. The machine can be used safely on subfloors of wood or concrete. Cutter blade angle can be adjusted and pressure increased for maximum action on any type of tile, thickness, or bonding agent. Free floating blade arm automatically adjusts for minor floor irregularities. The cutting blade is also "free" for left or right movement to follow tile edges.

AMERICAN FLOOR MACHINE Co., Toledo 3, Ohio,

SE-404 Hot Food Storage Receptacle Model HF5

Ease of installation, faster pre-heating and heat transfer, and choice of moist or dry operation are among the features of the new Model HF5 Hot Food Storage Receptacle.

It is constructed of a one-piece anodized aluminum chassis with a remote-control



thermostat. Its design permits the HF5 to be fabricator-installed, from top or bottom by several optional methods, in any standard table.

Because of the anodized aluminum surface of the HF5, water will never damage the receptacle, even after prolonged moist operation. This process also permits superior heat transfer to the food containers. There are no welds or rough surfaces to trap dirt.

Stepped-up power (to 1,500 watts) enables the new HF5 to preheat in 10 to 12 minutes (compared to 40 to 50 minutes in conventional models).

The remote-control thermostat is wired directly to the brazed-on Calrod (R) heating units of the HF5. The one-piece chassis is surrounded by aluminized sheet metal, which provides a minimum of %" dead-air space, insulating the table and reflecting otherwise wasted radiant heat back to the receptacle. No additional insulation is necessary.

Anodized aluminum pots and pans are recommended for optimum efficiency.

HOTPOINT Co., Commercial Equipment Dept., 6201 W. Roosevelt Rd., Berwyn, Ill.

Printing Calculator SE-405
With New Features

The new 10-key high speed printing calculator offers automatic multiplication, total transfer, decimal selection and other advanced features.

In multiplying operations the calculator prints only the multiplier, multiplicand and product, with their respective symbols, on the paper tape roll. All additions, subtractions and other calculations are also printed on the tape. Automatic total transfer permits the retention of a total so that it can be multiplied by any other number.

The decimal selector enables the operator to position decimals in any sequence desired. All entries can be made on the calculator's single keyboard, composed of 10 numerical keys, including the cipher.

Entry capacity is 10 columns and totaling capacity 11 columns.

The portable machine comes in the Clary beige finish.

CLARY CORP., San Gabriel, Calif.

Vertical Milling Machine SE-406 Has Improved Features

A new Vertical Spindle Precision Milling Machine with a number of improved design features which contribute to greater ease of operation, increased efficiency and more dependable performance is now in production.

The head swivels a full 360° on the flanged end of the overarm for milling, drilling or boring at any angle. A substantial key with tapered gib prevents overarm from turning in the column bearing. This permits moving head transversely without affecting angular setting of head. New vernier graduations reading in minutes and worm gear adjustment permit quick and easy setting of head angle with extreme precision. Overarm is 41/2" in diameter, has 15" rack and pinion cross movement, and can be locked rigidly at any point.

Extra large dovetails provide rigid support for the table and have tight fitting scrapers to keep bearing surfaces clean. Table is 9" wide and is available in 32" and 42" lengths providing 20" or 30" longitudinal travel respectively. Vertical adjustment of table is 18".

Spindle has No. 30 milling machine taper with 3/4" maximum collet capacity. Individual tool holders have up to 1" capacity. Spindle has 4" vertical travel with lever for rapid movement and handwheel for slow feed.

SOUTH BEND LATHE, South Bend 22,

Rolling Gymstands SE-407 Permit Flexible Gym Use



Multi-purpose use of the gymnasium is easy to achieve with the rolling gymstands made by Wayne Iron Works. In the West Hempstead Junior-Senior High School, Nassau County, N. Y., six sections are used along each side of the room. The stands contain eight rows of seating and can accommodate 1024 spectators. not in use, each section is closed against the wall, occupying a depth of only 2'8". In this position, seatboards and footboards, which take the wear of foot traffic, are hidden from view. Riser boards, running along the front of each row, alone remain visible, forming an attractive wall of finished wood.

The gymstands, when closed, provide room for class exercise, basketball practice, dances, exhibitions and similar activities where maximum floor area is needed.

WAYNE IRON WORKS, Lincoln Highway and Pembroke Ave., Wayne, Pa.

SE-408 Manual Typewriter Has Lighter Touch



The Touch-Master, Underwood's newest machine, has been developed by a team of physicists. It is especially designed to ease the typist's work load; requiring up to 26% less typing effort than most machines.

Underwood researchers found that a typist uses enough energy at her machine each day to lift one ton a foot in the air. Major design changes in the Touch-Master save her 350 foot pounds of energy in an average typing day, the equivalent of lifting a 35 pound typewriter a foot off her desk 10 times a day.

Available in Caribbean Green, Beach Beige and Continental Gray in the popular crackle finish.

UNDERWOOD CORP., One Park Ave., New York 16, N. Y.



TABLE & CHAIR CADDIES

Save time and effort! Reduce noise and confusion! Solve your problem of moving and storage of your folding tables and chairs with a Midwest Caddy. Designed to handle all types of folding thoirs and any size table. Built for rugged service. Smooth rolling rubber caster wheels for effortless handling.



MIDWEST PORTABLE FOLDING

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A heavy duty folding platform for auditorium, gym and multi-purpose room use. Size 4 ft. x B ft. Choice of 5 different heights. Du-Honey 20 automatic leg locks. 34 in. plywood top. Folds compactly.



Folding portable choral and band stands available in 18" or 36" widths; straight or tapered end styles; in range of 4 different heights. Folds easily, stores compactly.



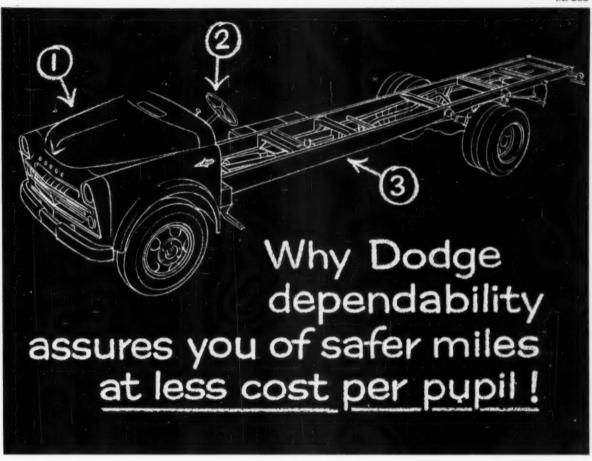
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FOLDING PRODUCTS SALES

DEPT. 67C

ROSELLE, ILLINOIS



Dodge School Bus Chassis cut your operating costs to the bone with the most efficient engines in Dodge Truck history. Take your choice of modern, high-compression V-8's that deliver trouble-free power on regular gas, or the famous Dodge Economy Six. All offer exceptional durability features like positive-pressure lubrication, positive-type exhaust valve rotators, and dozens more.

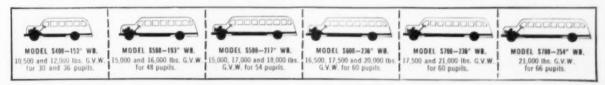
2 Dodge Chassis are safer to ride in . . . and easier to handle. Dodge meets all N.E.A. standards and offers additional safety features, too . . . a driveradjustable parking brake and independent head-

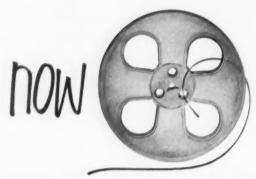
light circuits, for instance: Shortest turning radius makes Dodge easier to handle and maneuver . . . and thus reduces driver fatigue.

② Dodge Chassis are more ruggedly constructed for greater dependability. Side rails are deep, with double-width crossmembers for increased rigidity. Even the front bumper adds strength to the frame. Springs, axles . . . in fact, every part of this rugged Dodge chassis is designed to wear longer and cost you less over the years. Why not see for yourself? Talk over your school bus problems with your local Dodge dealer soon.

Dodge Power Giant School Bus Chassis

Choose from 6 Dodge School Bus Chassis for bodies accommodating 30 to 66 passengers. Max. G.V.W.'s from 10,500 to 21,000 lbs.





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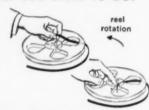
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SE-288





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A school coach is an *investment* in transportation and, like all sound investments, should pay dividends . . . in maximum passenger safety, more passenger miles at low cost, and an unquestioned quality that retains its dividend-producing properties year after year.

Superior Coaches possess all the qualities of a sound, long-term investment in school transportation. Safety is highlighted by scores of construction and design features that make Superior the safest, strongest in the industry . . . a ruggedness that also means more years of trouble-free operation, lower upkeep and lower operating costs per mile.

By any yardstick—safety, economy, performance— Superior is the soundest investment you can make in modern school transportation.

Write, wire or phone collect today. We'll be glad to demonstrate the many advantages of the finest bus you can buy.



SUPERIOR COACH CORPORATION

Plants in Lima, Ohio . Kosciusko, Mississippi

Flange Hemmer

SE-409

For Sewing On Summer Sheers

The Flange Hemmer, for use with Singer straight-needle and slant-needle sewing machines, is available for sewing on summer sheers.

This attachment is designed specifically to facilitate sewing on such fabrics as chiflon, organdy, voile and other sheers. It makes a 1/16" hem, to simulate the look of a hand-rolled hem which is essential to sheer fabrics. With the Flange Hemmer, there is no need to use tissue paper when stitching chiflon. After the fabric is fed into the rolled foot, the attachment may be guided with the same ease as an ordinary foot.

The Flange Hemmer may also be used with the Singer completely automatic swing-needle sewing machine.

SINGER SEWING MACHINE Co., 149 Broadway, New York 6, N. Y.

Fiber-Reinforced Plastic Skylight

SE-410

Reduces Heating and Air Conditioning Losses

The Consolite Double Dome Skylight is actually a twin-domed insulating plastic bubble, fiberglass-reinforced. The dead air space between its inner and outer domes gives it a very low rate of heat transmission—a "U" factor of .5 thus



reducing the heating and air conditioning losses caused by conventional skylights. Nevertheless, it transmits a high percentage of outside light, transforming glaring sunlight into pleasing, highly diffused interior light.

A specially pigmented model is designed especially for school skylighting, to conform with recommendations on modern classroom illumination.

The Consolite skylight has about four times the strength of conventional plastic skylights. Flexural strength is 20,000 pounds, p.s.i. Tensile strength is 10,000, p.s.i.

All-plastic construction makes the Consolite skylight very light in weight—easy to handle, fast to install. The various models range in weight from 10 to 55 pounds. Due to the double-dome construction, no interior provisions for condensation control are necessary. The thermos bottle construction eliminates condensation.

The new skylights are available in three shapes—square, round, and rectangular and in three basic models, self-flashing, curb-mounting, and bond type, in a variety of sizes ranging from 18" to 74"

FESOLITE CORP., Zelienople, Pa.

SE-411

Automatic Slide Projecter Shows Up to 36 Slides



A completely automatic Slide Projector accepts 35mm, bantam or new 1½" x 1½" format (obtained by cropping 120 transparencies) slides intermixed.

The fully automatic "815" Slide Projector shows up to 36 slides as slow or as fast as desired without the slightest attention:

Equipped with a fast Wollensak 5-inch F/3.5 anastigmat lens and coated optical system, powerful 500-watt lamp, automatic fade in and fade out, Irismatic diaphragm control with click stops for controlling viewing qualities of over-exposed slides, the new "815" comes complete with self-contained two-toned case.

WOLLENSAK OPTICAL Co., 320 21 St., Chicago 16, III.



Every school needs an Anchor Fence

Anchor Chain Link Fence keeps pupils inside—trespassers, vandals and unwanted animals outside.

Anchor Fence provides attractive protection for your grounds. Requires no annual maintenance because it's zinc-coated *after* weaving, not *before*. Remains permanently erect under all soil and weather conditions.

For more details, call your local

Anchor office or write: Anchor Fence, 6706 Eastern Avenue, Baltimore, Maryland.



Plants in: Baltimore, Md.; Houston, Texas; and Whittier, Cal. * Sold direct from Factory Branches and Warehouses in all principal cities

THE" MONTOE MASTER" SCHOOL FOLDING TABL





MONROE CLASSROOM CHAIR 578

9 Graded Heights, from 10" to 18". Ideal for classes, cafeterias, church schools. Stream-lined tubular steel frame, baked-on light brown enamel, contoured back and seat. Also steel folding chairs, several styles.

MONROE OPEN FRONT **DESK 996**

11 Graded Heights, from 20" to 30". Desk top light wood grain, high quality plastic. Light weight but solidly built tubular steel frame, baked-on light brown enamel. Book box sides and bottom made of henvy sheet steel. Also Monroe chair desks and folding tablet arm chairs.



MONROE STEEL FOLDING CHAIRS

Attractive range of styles sizes and prices. Excel in comfort, easy handling, dur-



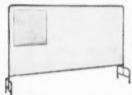
MONROE MOVABLE **PARTITIONS**

idle space to useful ar ce for the needs you have ns sturdily built and go smooth Masonite panels, steel frames, swivel ; Chalk board surface or const.



MONROE TRUCKS FOR

Store and handle Monroe Tables and Chairs ensily, quickly. Any room may be set up or cleared in a jiffy with our Monroe manufactured trucks. Several models and sizes.



TABLES AND CHAIRS



MONROE ADJUSTABLE HEIGHT FOLDING PEDESTAL TABLE 3DT

The folding table that adjusts to any height from 20 to 30 inches, from kindergartners to adults. No tools required. Will not slip or collapse, Also comes with teacher's recess at one side for intimate class supervision.



Monroe Folding Risers & Platforms

Most modern, practical, safe and economical units for staging orchestras, choral groups, bands, plays, commencements, etc.



The Monroe Company has long been recognized for its leadership in folding tables, now in use by over 42,000 schools, colleges, churches, clubs, lodges and other institutions. In addition it offers a complete line of folding steel chairs, trucks for tables and chairs, school chairs and deaks, risers and platforms, movable partitions, etc. Our complete catalog is a guide to equipment purchasing, with factory prices and quantity discounts to all organizations. Write for it today.

DIRECT FACTORY PRICES AND DISCOUNTS

THE MONROE COMPANY . 66 CHURCH ST., COLFAX, IOWA



Above picture identifies the famous Monroe Folding Pedestal Banquet Table which is known from coast to coast and in foreign countries. This is size 30x96 inches, with Masonie top. Schools and colleges, as well as churches, societies, and all organizations prize their Monroe No. 3 Tables, 7 other sizes, in three colorful top materials. Also utility folding tables including round, square, etc.

MONROE ROUND "ROLL-AWAY" FOLDING TABLE 48R

For heavy duty with case of handling. The Monroe 48R is 48" in diameter, also comes 54", 60" and 72" and customer built for large banquet settings. Positive locking. Our new round table segments afford almost unlimited capacity and attractive arrangements.







The Big K stands for KENT...

and KENT stands for the Finest in Floor Machines and Vacuum Cleaners

Here's the new label you'll soon be seeing on all Kent Floor Machines and Vacuum Cleaners. It's the label to keep in mind when you buy floor maintenance equipment. It's your assurance of advanced design and engineering that make Kent Floor Machines and Vacuum Cleaners outperform all others.

GET ALL THE FACTS

MAIL THIS COUPON TODAY



ABOUT KENT FLOOR MACHINES—all models with "Balanced Power" that lets your operators do 20% more work per hour, with less fatigue than with conventional "center-mounted" machines. ABOUT KENT VACUUM CLEANERS—the complete line that includes the new, lower cost TURBO-VAC series available in 4 models.

KENT CO., INC., 420 Canal St., Rome, N.Y.
Please send me complete literature on Kent Floor Machines that cu labor costs 20%.
Please send information on the complete line of Kent Vacuum Cleaners.
Firm Name
My Name
Address
City



Atlantic City's Newest Convention Hotel

The Jefferson with its new facilities for handling all convention groups is fast becoming Atlantic City's most popular convention hotel.

The Jefferson features an abundance of Meeting, Banquet and Exhibition Rooms fully equipped to handle your every need. Experienced personnel. Location ideal in heart of Atlantic City.

WRITE . PHONE . WIRE TODAY FOR DESCRIPTIVE LITERATURE

Convention Manager
HOTEL JEFFERSON
Atlantic City, N. J.

SE-29



Here's the latest Naden football scoreboard N-400-IV, with 24" Instant-Vue numerals, easily readable, day or night, from any seat in the stadium.

Write for Catalog No. 1E — Basketball; No. 2E—Football; No. 3E—Baseball. All Naden Football scoreboards are factory installed and fully guaranteed. Act now for installation this season.

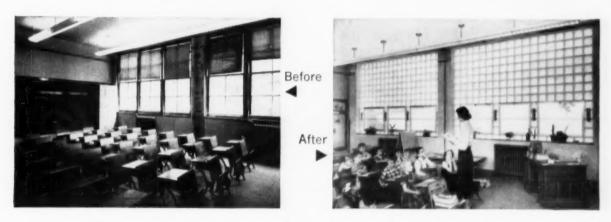


NADEN AND SONS WEBSTER CITY, IOWA

How to get a "new" school on an old-school budget



PC Glass Blocks modernize the exterior...



... and improve the daylighting inside

Window modernization with PC Glass Blocks offers a happy solution to school planners who would like the features of a new plant but are confined by budget to modest improvements on the old, still-adequate building.

Two of the many benefits you can expect with a PC Block installation are illustrated in the pictures above of the Turner School, Wilkinsburg, Pa. Old exteriors get an architectural "face-lifting" that belies the date on the cornerstone. Classroom illumination takes on a soft, cheerful look . . . the result of internal prisms in the blocks that control daylight, banning glare and distracting shadows.

The insulation value of PC Glass Blocks (equivalent to 8 inches of masonry) cuts heating bills. And budget-draining expenditures for window maintenance are eliminated.

Whether it is construction of a new school or modernization of an old one, P-C has an important message for you that can mean a better school for the pupils at less cost to the taxpayers. Write for our booklet, *The 3R's and Daylighting*. Pittsburgh Corning Corporation, Dept. 670, One Gateway Center, Pittsburgh 22, Pennsylvania. In Canada: 57 Bloor Street West, Toronto, Ontario.

PC Glass Blocks



Also manufacturers of FOAMGLAS® insulation



SE-412

Wall-Hung Drinking Fountain

In Colorful Lightweight Fiberglas

The new rectangular fiberglas bowl and backing is offered in a selection of five colors and white, permanently bonded for lifetime brilliance. Reinforced lightweight fiberglas plastic has proven strong and durable material for fountain design and its light weight affords easier installa-

Chrome plated lever handle operates Haws' smartly designed sanitary fountain head chrome-plated angle stream, raised and shielded to prevent direct mouth contact. Automatic flow control assures a constantly regulated water flow,

Haws describes this new Model 71 as ideal for schools where handsome colors add cheer to surroundings. Vandal-proof



locking device prevents fixtures from being turned or removed.

HAWS DRINKING FAUCET Co., Fourth and Page Streets, Berkeley 10, Calif.

Chappie Power Meter SE-413 For Batting Practice



The Chappie Power Meter for ballplayers is a new idea in batting practice. It measures, in feet, the exact distance the batter can hit the ball. The player can groove a powerful swing by repeating the reading that gives the best hits.

It attaches simply and securely to the bat. Hitting the bat is not necessary; simply swing bat for distance reading. Can be used indoors or out.

CHAPMAN-THORNE, 813 National Bldg., Minneapolis 2, Minn.

SE-414 **Outdoor Incinerator** Has Scientific Draft Control



Alsto's latest incinerator, Model C10, is low in cost. Safe to use 10' from buildings, this unit needs no watching. It burns sweepings, packing, cartons, waste paper, food scraps, damp or dry refuse to fine ash in any weather. Scientific draft control ends danger of burning, blowing bits of paper minimizes smoke and smell.

Made of aluminized steel (molten aluminum bonded to steel), the C10 features new replaceable double panel construction, new hinged loading hood, and new shovel-wide ash cleanout door, The unit stands 52" high x 35" square at base, with 8" high detachable ash pan base and grate. Alsto Co., 4007 Detroit Ave., Cleve-

land 13, Ohio,

SE-296 Serve ALL Science Labs ECONONIC

with One FLEXIHOOD

Kewaunee's Safe, Movable, Clear-View Fume Hood

Put it where you want it. Kewaunee's FLEXIHOOD is easily moved-within a lab and from room to room. With one low-cost unit, you can provide all your science departments with safe, sure fume removal.

Glass paneled front and rear, the FLEXIHOOD is an ex-cellent lecture-demonstration unit that provides all students with an unobstructed view of the experiment as it is being

FLEXIHOOD is remarkably compact -361/2" wide (43" with attached blower), 25" high, 20" deep. It requires no expensive installation for blower and duct system and does not need fixed mechanical services.

Write for FREE brochure giving complete details and specifications on the efficient, portable FLEXIHOOD.



REPRESENTATIVES IN PRINCIPAL CITIES Kewaunee

KEWAUNEE MANUFACTURING CO.

5031 S. Center St., Adrian, Michigan



TWIN TORNADOS HIT RITTENHOUSE

and make a breeze of rough cleaning jobs

Don't look for the Rittenhouse Apartment Building in Washington to be "messed up" by these TORNADOS. Anything but, for they use TORNADO vacuum and floor equipment to turn their tough cleaning jobs into a breeze.

First, for that always rough job of boiler cleaning, they depend on a TORNADO Jumbo Conversion unit with its delivery of up to 1½ h.p. of suction with a single motor unit (3 h.p. with 2 units) and the tremendous capacity of any standard 55 gallon drum. Here's superior cleaning performance and real work-sized waste capacity . . .

And for those lovely inlaid wood floors it's the TORNADO Model 900 floor machine that buffs them to that "eat off the floor" look. The powerf 1, yet quiet motor unit and the ease-of-operation features of the TORNADO Model 900 delivers top performance for the toughest floor scrubbing—polishing—and stripping jobs.

For the complete story on both
Tornado Jumbo Conversion Vacuum and the Model 900 Floor Machine
Write for Bulletins 783 and 758.

BREUER ELECTRIC MFG. COMPANY

For Your Complete Stadium, Addition or Portable Seating—Safway 'DELUXE' Steel Bleachers



SAFWAY "DELUXE" BLEACHER ADVANTAGES

- ★ LOADS AND SHOCKS DISTRIBUTED evenly by unified, interconnected steel structure (no independent towers).
- ★ SPECTATOR COMFORT AND VISION assured by 8½-in. rise-perrow, 17-in. seat height and 24-in. back-to-back distance.
- ★ EASY ASSEMBLY BY YOUR PERSONNEL. Only 7 types of parts, assembled with simple coupling pins and wing nuts. No tools needed.
- ★ LONG-LIFE CONSTRUCTION. Made from high tensile structural steel tubing with weatherproofed baked enamel inside and out.

University of lowa closes end of stadium with this new 12,000 seat addition of Safway "De Luxe" steel bleachers. Corner sections to be filled in later.

FULL SPECTATOR SAFETY AND COMFORT TO 55 ROWS; LIFETIME CONSTRUCTION

DE LUXE SEATING for a wide range of events can be provided economically with Safway "De Luxe" tubular steel bleachers.

This equipment is practical for complete stadia seating many thousands, or for additions to existing facilities (see photo). Made in easily demountable standard parts, it can also be re-used for temporary set-ups of any size and form—outdoors or inside.

Safway provides good vision from every seat, ample leg-room, easy climbing and complete safety.

Investigate Safway "De Luxe", bleachers—submit job details for recommendations (no obligation).

WRITE FOR BULLETIN 36



SF-200

SE-300

WATERLOX-

Heavy Duty Gym Finish

A PREMIUM TUNG OIL PRODUCT



WATERLOX

Heavy Duty Gym Finish Meets Government Specifications— APPROVED BY Maple Flooring Manufacturers Assoc.

A gym finished with Waterlax

Rubber burns do not make a lasting impression on WATERLOX Heavy Duty Gym Finish. These blemishes easily removed.

It's TOUGH!

It's LONG-LASTING

It's BEAUTIFULI

Its Performance—UNEXCELLED!
WRITE FOR FREE SAMPLE

WATERLOX Div., Empire Varnish Co. 2636 East 76 St., Cleveland 4, Ohio

Please send FREE pint can of WATERLOX

Title

St.

City

Please attach to school letter-head



Time tested and proven in years of actual use over thousands of miles of buried pipe, "GLASFAB" Brand TORCH TAPE provides permanent corrosion protection. This service is assured because of its high di-electric resistance together with rot-proof qualities of coal tar pitch reinforced with "GLASFAB" brand woven membrane. One ply application on above grade lines and two ply on below grade piping is recommended. It is available in widths from 2" to 45". TORCH TAPE is conveniently applied without adhesives by heating the surface lightly which permits perfect contouring. The bond is assured and no moisture migration can occur.

Write today for literature on "GLASFAB" TORCH TAPE brochure

TWINSBURG-MILLER CORPORATION
P.O. BOX 207 TWINSBURG, OHIO

BECKLEY tubular seating

... designed in a wide variety of basic styles for activity-centered classrooms and general school use



Open end
Desk
D5655

Multi-purpose Chairs D5635
for lunch rooms, libraries, offices,
classrooms, etc. Heights for kindergarten through college.

BECKLEY/CARDY

1914 no. narragansett ave. • chicago 39, ill.

PORTABLE — for ease in forming small group activities and for simpler floor maintenance.

DURABLE — tapered steel tubing and cantilever truss bracing provide rugged strength to meet long hard usage.

Besides offering a cheerful informality that makes a classroom so inviting . . . Beckley tubular seating offers many practical functional advantages.

The legs — wide spread for stability and extra leg room — are self-adjusting to uneven floors and have rubber feet and metal glides for quick, quiet class rearrangement. The correct posture seat offers sitting comfort to the student.

Solid maple desk or arm top . . . may be specified with plastic surface to resist carving or staining. Generous book storage provided in open end desk. When specified, a book rack of welded rod construction is furnished under chair seat of other models.

Standard finish, metallic gray; beige, green or coral also available.

Write for complete details and prices



for over 50 years a reliable source for school supplies

Fiber Glass Legs

SE-415

For Streamliner Metal Desks



Designed with emphasis on modern styling, these legs serve a functional as well as a decorative purpose. Any of the 86 desks in the Streamliner Series may be equipped with these new-style legs which match the desk's color.

Fiber Glass legs are gracefully curved with smoothly rounded edges in keeping with the desk's lines. In addition, these legs have great impact resistance, are reinforced with a metal frame for greater strength and easy attachment to the desk pedestal. Globe - Wernicke's decorative finishes in seal gray, sea green, and copper tan are pigmented throughout the fiber glass for color harmony between desk and legs.

The new fiber glass legs are mar and scuff-proof, facilitate cleaning, and are equipped with adjustable glides so that

SE-302

the desk's height may be adjusted from 29" to 30\frac{1}{2}" to meet the individual user's requirements.

THE GLOBE-WERNICKE Co., Cincinnati 12. Ohio.

Utility Box

SE-416

In Molded Fibreglass



Home economics, manual training, and industrial arts departments of schools and institutions will find this new molded fibreglass utility box useful as a storage box for in-work projects, equipment and supplies.

Weighing only 4 lbs. and with generous 15-%" x 20-%" x 5" dimensions, the box is seamless, easy to clean, and can be compactly stacked when not in use. A stack of 24 boxes deep is only 28" high.

Recessed hand grips at each end permit easy carrying and handling. The fibreglass material is exceptionally tough and wearresistant to common acids and alkalis.

It is available in a light gray color. SAMUEL OLSON Mrg. Co., INC., 2418 Bloomingdale Ave., Chicago, Ill.

Lighting Fixtures SE-417 Wing-Like Appearance

A new lighting Series, the Parawing, Parawing Ultra, and Paralume are wing-like in appearance with an apparent shallowness and accented width. Translucent Polystyrene sides are extruded in one piece for either 4 or 8-foot units. Their design blends the lighted fixture smoothly into the ceiling. In cross-section, the color-stabilized side pieces are a modified triangle, hollow inside, providing double diffusion of side light. Ends of extrusion have a polyethylene cap to prevent entrance of dust and insects.

Parawing has a baked white interlocked louver assembly, and is available in 2lamp, 4-foot Rapid-Start; 4-lamp, 4-foot Rapid-Start; 2-lamp, 8-foot Slimline and tandem 8-foot Rapid-Start. Parawing Ultra, also furnished in 4 and 8-foot 2lamp units, is equipped with the exclusive Day-Brite aluminum Para-louvers to provide the ultimate in comfort and lowbrightness illumination. Paralume, furnished without lateral louvers, has a center V-louver which provides a 350° lateral cut-off. Eight-foot louver assemblies have a wire bale at one end in addition to safety chains. Assembly swings back into locking position on bale, facilitating maintenance

DAY-BRITE LIGHTING, INC., 5411 Bulver, St. Louis 7, Mo.

MAKE YOUR SCHOOLS SAFER!

Specify and install

HAWS
EMERGENCY
EYE-WASH
FOUNTAINS



MODEL 8930

Basic eye-wash fountain, one of numerous models. Automatic volume and pressure controls; adaptable to simple foot treadle or manual operation; acid resisting enameled iron bowl.

Immediate first-aid for eye accidents! FOR LABS, SHOPS, GYMS, DISPENSARIES—wherever eyes are exposed to danger. HAWS Emergency Eye-Wash Fountains have special fountain heads that send controlled streams of water into the eyes, flushing away chemicals or other foreign matter, saving vital moments until medical aid arrives, possibly avoiding permanent injury. Protect your students! Find out about Haws Drench Shower Unit for contaminated bodies, too.

WRITE TODAY FOR FREE ILLUSTRATED FOLDER



DRINKING FAUCET CO.

1443 FOURTH STREET (Since 1909) BERKELEY 10, CALIFORNIA Manufacturers of complete lines of drinking fountains, faucets, electric water coolers, parts and accessories.





Model 1055 Drawing or Art Table Size of top, 42 x 30 x 11/4 in. Height of work surface, 411/4 in. at back, 37 in. at front. Legs and

at back, 37 in. at front. Legs and braces are of anodized satin-fish, heavy extruded aluminum tubing. Top is close-grained laminated hardwood with a metal U channel flush mounted at each end. Drawing board cabinets are of all-welded steel with box flange construction. They have built-in separators for storing 12 drawing boards. Model 242 stool is shown with units.

Here is a new concept in furniture for mechanical drawing and art classes

-you can have as many classes as you want without buying expensive 6-class tables

SPS has developed an entirely new concept in furniture for mechanical drawing and art classes—a combination of drawing tables, drawer and drawing board storage units which permits great versatility in number of classes without buying extra tables.

HERE'S HOW IT WORKS

A student is assigned a drawer and a drawing board at the start of a semester. These are stored in the service unit. At the start of each class, the student removes his drawer and his drawing board and carries them to his drawing table. At the end of each class, he returns both items to the service unit. The table at which he was working is then ready for the next class.

HERE ARE ITS ADVANTAGES

Only one drawer and one drawing board are at a table at any time. No drawer tiers and drawing board storage units are hung from the underside of the table to limit leg room. Classrooms are neater. There is no clutter under the table.

Less possibility of pilfering or tampering with drawers and their contents. The individual student has his own drawer and drawing board safely stored in the service unit.

Schools with 2, 3 or 4 classes per day need not buy expensive 6-class tables. Schools with six classes per day need not buy extra 6-class tables for night classes. All they do in either case is determine the number of classes per table and buy service units to meet present and future requirements.

This furniture for mechanical drawing and art classes is just one element in the complete HALLOWELL School Shop Furniture line. See our Catalog 2112 for all units. Write for your copy today. HALLOWELL Shop Equipment Division, STANDARD PRESSED STEEL Co., Jenkintown 76, Pa.

STANDARD PRESSED STEEL CO.

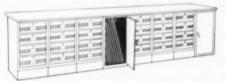
HALLOWELL SHOP EQUIPMENT DIVISION



TYPICAL ARRANGEMENTS OF HALLOWELL SERVICE UNITS



2-high section of service units. Has 36 drawers, holds 36 boards.



Wall reference table—6 drawer units, 2 drawing board units hold 24 boards.



Planning table—3 drawer units, 1 drawing board unit for 12 boards.

It is Easy to have Clean Floors



Floor Cleaning Tools

White floor cleaning equipment is engineered to clean your floors properly and quickly - and to give years of efficient service. Top quality materials plus expert workmanship make White the best you can buy. And there are 252 cleaning items all under one brand name.

The famous Tymsaver single outfit shown below combines the oval bucket with the White "Can't Splash" wringer. At right is the double outfit with the White Eccentric Gear Downward Pressure Wringer. Either type wringer can



HITE MOP WRINGER CO.

7 MOHAWK ST. . FULTONVILLE, N.Y. Canadian Factory: Paris, Ontario, Canada

The ONE complete line of floor cleaning tools

THE RIGHT COMBINATION-IT CLICKS!

GOUGLER KEYLESS COMBINATION LOCK



Gougler locks are famous because they can be opened in the dark. No numbers, just count the "clicks"

The Gougler Lock at left is very popular. It is a fine lock, popularly priced and distinctively superior to others. It is a very strong lock, simple, durable and so easy to use - if you know the right combination.

Die cast cases impervious to moisture

The finest for modern school

NEW!

GOUGLER MASTER KEY COMBINATION LOCK

New kind of master key, cannot be duplicated by key machines. Fits in bottom slot, swings right to unlock. Enables safe efficient supervision. Thin, modern design. Plain flat back.

Write for free sample lock and factory prices

C. L. GOUGLER KEYLESS LOCK CO. 705 Lake St. Dept. 4 Kent, Ohio

SE-306



TUBULAR STEEL

olding Chair



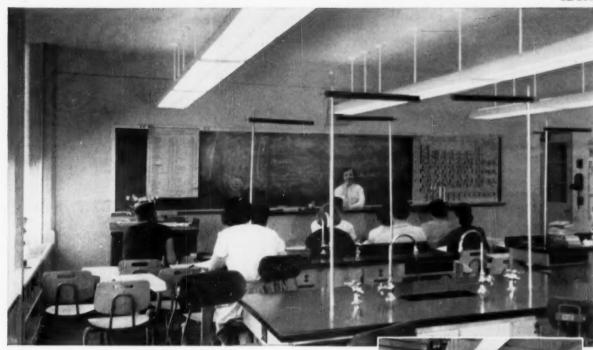
Comfortable, Strong, Good-Looking and Low in Cost

> Unequalled in value, this handsome chair is surprisingly inexpensive, is contoured for maximum comfort and built extra strong to last and last, even with rough treatment, Comes in 3 baked-on-enamel colors. Write for details!

CAMPCO DIVISION



National Metal Products Company 2 Gateway Center, Pittsburgh 22, Pa.



JOHNSON DUAL THERMOSTATS PROVIDE ECONOMICAL DAY-NIGHT TEMPERATURE CONTROL

Like so many informed school planners, designers of the Lockport Senior High School*, Lockport, New York, provided a Johnson Pneumatic Control System with Johnson Dual Thermostats for day-night individual room temperature control. With Johnson Dual Thermostats located on the wall of each classroom, the Lockport school makes up-to-date provisions for maintaining student comfort and alertness and, at the same time, has the means for economical nighttime heating during after-hours activities.

During regular school hours, the *Dual* Thermostats insure precision regulation of both heat and ventilation according to the exact needs of each room. At other times, thermostats are indexed to operate at low, economy temperatures. If any room continues in use, simply pushing the button on the *Dual* Thermostat restores that room to normal daytime occupancy temperature without affecting the economy settings of other thermostats in the building. Fuel savings quickly pay for the entire cost of the control system in a busy school.

When you build or modernize, be sure you get these and the many other comfort and fuel-saving advantages of a Johnson Pneumatic Control System. An engineer from a nearby Johnson branch office will gladly show you, your architect or consulting engineer how Johnson can answer all your temperature control needs. Johnson Service Company, Milwaukee 1, Wisconsin. Direct Branch Offices in Principal Cities.



*Lockport Senior High School, Lockport, New York. Schmill and Hoffmeyer, architects, Buffalo, Beman and Candee, mechanical engineers, Buffalo, John W. Cowper Co., Inc., general contractor, Buffalo, H. C. Mapes Corp., mechanical contractor, lockport.



JOHNSON CONTROL

PLANNING . MANUFACTURING . INSTALLING . SINCE 1885

SF-418 Shallow Pocket and Bench Unit Folds Into 5" Wall Pocket

Schieber has developed a new unit for installation in inside walls and outside walls of less than customary thickness such as frequently used in warmer climates. The new table and bench unit for multipurpose rooms folds into a wall pocket approximately 5 inches deep without sacrificing quality or features.

The new unit, called Compac-Fold, is detachable from the wall and can be rolled to any location. Tables and benches which are not connected to each other may be used independently.



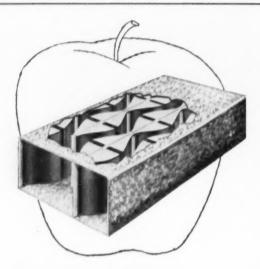
In addition to the shallow pocket fea-ture, is the double depth pocket which contains two complete sets of Compac-

Fold tables and benches. This pocket is only 10 inches thick and may be installed against the wall or partially or completely recessed. It is ideally suited to modern structures having large window areas with restricted wall space for pocket installa-

Compac-Fold tables and benches have strong, 1" all-steel tubular understructure. All joints are welded in precision jigs. Forged clevis hinges on linkage reduce rattle and wear to a minimum. Tops are 34", 7 ply Philippine mahogany surfaced with heat-resistant, long-wearing plastic backer sheet

Schieber Sales Co., Detroit 39, Mich.

SE-308



AIRCOUSTATthe teacher's pet!

AIRCOUSTAT sound traps silence air-conditioning and ventilating noises that compete with the teacher in the classroom and the speaker in the auditorium-for the attention of the students.

AIRCOUSTAT suppresses air conditioning and ventilating noises over the entire audio-frequency range. It costs up to 50% less than other, less-effective sound control treatments—with savings in time and labor costs. It's quick and easy to install. With AIRCOUSTAT, you can silence either an entire duct system or certain selected outlets.

For more details, write to KOPPERS COMPANY, INC., Industrial Sound Control Dept., 8206 Scott Street, Baltimore 3, Maryland.



Engineered Products Sold with Service

Signal Timer

SE-419

Sound Bells for Schools



A signal timer, Model 5700, will automatically sound time signals at pre-set intervals, every day, without need for manual attention.

Duration of signals can be set for from 5 to 60 seconds, with a minimum time interval of 5 minutes between signals. As many as are required can be programmed during the 24 hour period. No tools are needed in setting or changing schedules; the program mechanism is set automatically by turning the minute hand (as with an ordinary clock) of the hour dial. A Skip-A-Day feature, on the timer, cutting off signal operation on weekends or holidays, is optional equipment,

TORK TIME CONTROLS, INC., Mt. Vernon, N. Y.

Group Slide-Filer

SE-420

For Slide Filing Conversion

With the increase in the use of 2" x slides in the classroom, the Jack C. Coffey Co. has developed a group slidefiler to convert one-half a drawer, one full drawer or any number of drawers of filmstrip library plan cabinets to slide

Groups of slides in varying quantities can be filed by subject matter. The capacity of a one-half drawer slide filer is approximately 640 readymount (paper) slides or 300 glass-bound slides. One full drawer will hold 1,280 readymount (paper bound) slides or 600 glass-bound slides. A complete model No. 360D cabinet converted to slide-filing will hold approxi-mately 5,120 2" x 2" readymount slides.

JACK C. COFFEY Co., N. Chicago, Ill.



What's the Answer?

For years school men have been indoctrinated with the idea that all mechanical folding bleachers are alike. This conception has caused many purchasers of bleachers great disappointments — in the workability, material content and physical appearance of bleacher installations.

The Berlin EZ-A-WAY bleacher is in a class by itself, and far exceeds any other mechanical folding bleacher made in all the important requirements for this type of product. It is true you might pay a premium for Berlin EZ-A-WAY bleachers in some instances — but we assure you the extra money will be well spent. If given an opportunity to show Berlin bleachers and prove their superiority, we feel price differential is more than justified.

Many so-called "new" bleachers are appearing on the market and "riding the crest of popularity" of mechanical folding bleachers. Many well meaning superintendents and school administrators are being confused by salesmanship, low prices and the assumption that mechanical folding bleachers are all alike. Check and compare before you purchase bleachers. Know the product... know the company behind that product.

The Berlin EZ-A-WAY bleacher is the result of many years of experimentation and development and is the product of a company known for over 48 years as steel fabricators of the highest regard. The Berlin Chapman Company's code of high standards is reflected throughout its product. All Berlin EZ-A-WAY bleachers are custom made to your requirement and are not the result of an accumulation of sub-assemblies and interdependent parts manufactured in various parts of the country. The Berlin EZ-A-WAY bleacher is manufactured at Berlin, Wisconsin, under one company, one management and one factory. All parts are made by the Berlin Chapman Company, sold through licensed dealers and installed by Berlin Chapman installation engineers or factory trained personnel. Give our sales representatives an opportunity to explain our high standards and superiority. You will be glad you did!

Write for technical information as well as other facts that might assist you in deciding upon which is the best bleacher to buy for your particular need.

Candisting

Sales Manager, Bleacher Division



BERLIN . WISCONSIN





Dependable Locker Guardians

NATIONAL LOCK **Combination Locks**



- check these QUALITY

SHACKLE LOCKS

- Sound engineering
- Sturdy components
- Brass working parts
- Chromium plated shackle
- Stainless steel outer case
- Self-locking
- 3-number dialing
- Available with or without masterkey feature

BUILT-IN LOCKS

- · Rugged construction
- Attractive styling
- Baked enamel dial
- Zinc plated bolt and box
- 3-number dialing
- Self-locking
- Fit all standard lockers
- · Available with or without masterkey feature

Master charts for lock records, complete with leatherette binder, are supplied FREE with quantity lock purchases. Write on your letterhead for FREE sample lock.

ASK ABOUT OUR LABORATORY-CABINET LOCKS, TOO.



68-259

Control Key

NATIONAL LOCK COMPANY

Rockford, Illinois LOCK DIVISION



HOBBY HORSE SWING

HOBBY HORSE SWING

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excitement, adventure and exercise on this Burke Exclusive
Heavy Duty HOBBY HORSE
SWING. No pushing is necessary; they build their own momentum ... with safety, as
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"extra strength" in every brace,
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KIDDIE GLIDER

KIDDIE GLIDER
Two can find adventure together
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GLIDER and they can't bang
their heads, pinch their legs
or swing too high. Burke-Built
in excess of safety code require-

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To satisfy that insatiable de-sire "to elimb," the Burke CLIMB-A-ROUND is conical in shape and can't tip over Too, the climber must constantly lean forward to ascend which



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SE-312

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LOXIT FLOOR LAYING SYSTEM

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SCHOOL EQUIPMENT INDEX-JUNE, 1957

This index covers products and services referred to in both advertisements and editorial reviews in this issue. To find a particular advertisement or editorial listing, consult the key (SE number) which precedes the listing, and which will also be found above the advertisement or listing in the body of the magazine.

If further information concerning any of these products is desired, it will be sent without charge or obligations. Simply circle the identifying numbers on the back of the business reply card below and mail it to us.

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SE NEW PRODUCT BEVIEWS 278 USS Stainless Steel Milk Dispensers 307 Johnson Dual Thermostats 279 Dudley Locks 308 Koppers Aircoustat Sound Traps 401 Brunswick Cinset Walls, Closet Fronts 309 Berlin Ex-A-Way Bleachers **Duke Waterless Food Warmers** 402 American Air Conditioner 280 Mitchell Folding Tables & Stands 310 National Combination Locks 403 American Floor Tile Remover 281 Westinghouse Water Coolers 311 Burke Playground Equipment 404 Hotpoint Hot Food Storage Receptacle 282 312 Loxit Floor Laying System H-O-N Bookcass 405 Clary Printing Calculator 283 313 **Huntington Floor Maintenance Products** 406 South Bend Vertical Milling Machine 284 Midwest Folding Products Dodge School Bus 314 Bennett Waste Receptacles Wayne Rolling Gymstands Audio Devices Audiotope 315 Beltone Audiometers 408 **Underwood Manual Typewriter** Brower-Titchener-BTC Hostess Chairs & 316 Rayland-Borg Intercommunication System 287 409 Singer Flange Hemmer Tobles 317 Bobrick Soop Dispensers Resolite Fiber-Reinforced Plastic Skylight 410 288 Master Combination Padlacks 318 Universal Univex Food Mixer 411 Wollensak Automatic Slide Projector 289 Superior School Coach 319 Simoniz Non-Scuff Floor Finish with Vinyi 412 Haws Wall-Hung Drinking Fountain 290 Anchor Chain Link Fence 320 Tremco Building Maintenance Products 413 Chapman-Thorne Chappie Power Meter Monroe Folding Furniture 414 Alsto Outdoor Incinerator 321 IBM Electric Typewriter 292 Kent Floor Machines and Vacuums 322 Puffer-Hubbard Commercial Refrigerators 415 Globe-Wernicke Fiber Glass Legs 293 Hotel Jefferson in Atlantic City Hussey Roll-Out Gym Seats 416 Samuel Olson Utility Box 294 Nadon and Sons Electric Scoreboard 324 J. & J. Bela School Furniture 417 Day-Brite Lighting Fixtures PC Glass Blocks 295 418 Schieber Shallow Pocket & Bench Unit 325 Mosqie Coramic Tile 296 Kewgunee Fume Hood 419 Tork Signal Timer 326 Bradley Counter Type Drinking Fountains 297 Breuer Twin Tornado Floor Machines 420 Coffey Group Slide-Filer 327 Rowles Mastermade Movable Desk Safway Steel Bleachers 298 421 Cable Electric Multiple Electric Outlet 328 Judy Visual-Manipulative Aids **Empire Waterlox Heavy Duty Gym** 329 Master Builders Colorcron Concrete Finish 422 Vitricon Concrete Finish 300 Twinsburg-Miller Glasfab Torch Tape Stonco Weatherproof Wiring Troughs & 330 Fairbanks Standby Power Generator Splice Boxes 301 Bockley Tubular Seating 424 Armstrong Vinyl Wall Tile 331 Metwood Folding Tables 302 Haws Emergency Eye-Wash Fountains 332 1957-58 Edition of American School and Pittsburgh Glass Block Curtain Wall Standard Mechanical Drawing & Art 303 University Class Furniture 426 Don Odor Neutralizer 333 Rilco Laminated Products 304 White Floor Cleaning Teels 334 Victor 16mm Projector 305 Gougler Master Key Combination Lock AUDIO-VISUAL AIDS 335 Incinerator Products School Incinerators 306 National Campeo Tubular Steel Folding Chair 33A Coronet Films 501 Jam Handy Classic Stories 502 British Information Oil Film 503 YAF Paper Sculpture Film

THE SCHOOL EXECUTIVE, 470 Fourth Ave., New York 16, N. Y. June. 1957 Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

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510 Wayne Rolling Gymstands

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There is a man who knows



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Maintaining a floor, especially an asphalt tile floor, can be a problem. The finishing material selected must stand up under abuse. It must keep floors light and attractive without harming the surface. It must be easy enough to use so that labor costs are low. And, it must be easy, as well as economical, to maintain.

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knows how to do the job in the best way with the least expense for labor and materials. He knows how to protect all of your costly floors and floor coverings and the best ways to maintain your building from floor to ceiling, and he can help you in other ways, too.

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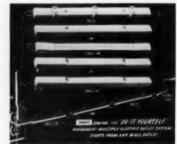
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Installation is Quick and Easy

Inter-Link is the name of a permanent multiple electric outlet system which requires only a screwdriver to mount on the wall or baseboard.

Each one foot section mates with the next as easily as a child's interlocking toy. Just start from an existing wall receptacle and add sections around the wall, placing outlets just where they are needed.

There are five units in the Inter-Link line; 1) a straight cap available, or 2) an



angle cap available, for plugging into the wall outlet, 3) a rigid link for the straight

SE-314

run along the wall or baseboard, 4) a flexible link for going around corners or doors, and 5) a three receptacle outlet

CABLE ELECTRIC PRODUCTS, INC., 234 Daboll St., Providence 7, R. I.

Concrete Finish

SE-422

Glazes Like Tile

Vitricon is the name of a new concrete finish that is sprayed on and glazes like tile. Schools have found that this product has special application around the perimeter of gymnasiums where it resists scuffing and marring from heavy use. Its smooth surface prevents painful scratches and abrasions on knees and el-

Although the surface is hard and tough enough to outlast its concrete block base, the Vitricon finish can be drilled and cut without difficulty for the installation of hardware. Grandstand seats can be installed against the walls for instance, without the material chipping, cracking or

Low pressure spray equipment, similar to that used for paint, is used to apply the thin, durable finish. A surface glaze forms upon application; usable hardness is reached in a few hours; maximum toughness within a month.

VITRICON, INC., Long Island City, N. Y.

HELP KEEP OUR SCHOOL CLEAN

HELP KEEP OUR CAMPUS CLEAN

an Invitation to Automatic Cleanliness with

BENNETT

WASTE RECEPTACLES

Eve catching stenciled messages on 1, 2, 3 or 4 sides of Bennett Waste Receptacles invite students to keep the Schools and Campuses clean. Students automatically de-

posit waste and refuse in these attractive, easy to use, conveniently placed waste receptacles. Bennett Waste Receptacles have rounded corners . . . welded joints . . . heavy guage steel . . . special outdoor Green, Gray or White baked on enamel finish . . . stainless steel feet. Quality and every consideration for hard use are self-evident throughout Bennett Self-Closing Waste Receptacles.



QUICK, EASY, ECONOMICAL



Showing one plate, lag bolt and expansion shield from the economical kit containing 4 of each.

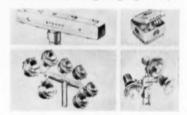
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THE BENNETT MANUFACTURING CO., ALDEN, N. Y.	SE-6-57
Kindly send to my personal attention a FREE copy of the fully-illustrated	
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Weatherproof Wiring Troughs and Splice Boxes

Increase Floodlighting Efficiency

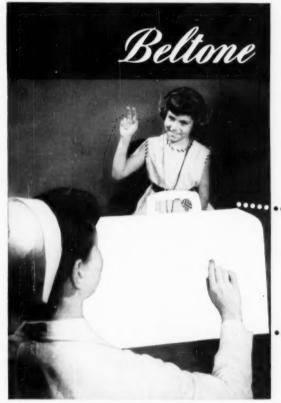


Two new series of weatherproof wirner, troughs and splice boxes are designed to increase floodlighting efficiency in outdoor applications as well as to cut down costs initial equipment, installation and maintenance

Both are made of tough aluminum alloys, precision die cast under tremendous pressure to provide greater structural strength with less actual weight. Covers are also precision east aluminum and are made full length to expose the entire box or trough interior for quick easy splicing. Trough holes are standard 1/2" NPS to fit any standard lampholder or fitting, and are slanted outward to provide additional free space for more lampholders on each trough so that floodlighting installations can be laid out with fewer clusters.

The new wiring troughs come in sizes from 9" to 22" in length, to hold up to 12 lampholders individually, while the new splice boxes come in square, round, and heragon shapes.

STONCO ELECTRIC PRODUCTS Co., 333 Monroe Ave., Kenilworth, N.J.



the <u>ideal</u> audiometer for easy, accurate student hearing tests

331/3 % FASTER BY ACTUAL TEST!



Model 9-A, \$295. For threshold audiograms.

AUTHORITATIVE ESTIMATES disclose that about 3,000,000 school age children in this country suffer from hearing loss. Often neither the children, the parents, nor the teachers realize what is the matter. Symptoms such as laziness, indifference, speech defects, apparent backwardness, or failure to pass grades may indicate that children have defective hearing. And grade repeaters can cost a school a minimum of \$300 per repeater.

Revealing as these statistics may be, there is only one sure way to tell if a child suffers from hearing loss. That is by scientific hearing tests. When tests reveal that a child has a hearing loss, he is referred to a doctor. Most losses can be corrected, and the child is no longer held back needlessly.

To simplify their hearing test programs, many leading schools, universities, hospitals, and other institutions have adopted the Beltone Portable Audiometer as the one audiometer that satisfies all their exacting requirements for performing group and individual hearing tests. It's the only audiometer that gives you these outstanding top-flight advantages:

- ACCURACY—exclusive one tube electronic circuit and single induction coil assure greater accuracy through trouble free circuitry.
- 2. EASE OF OPERATION—large, easy-to-read dials mean less manipulation by operator, allow quicker screening tests, faster preparation of audiograms.
- 3. SPEED -331/3% more children may be tested per day with the Beltone Portable Audiometer, saving valuable academic time.
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- 5. LOW COST—no other audiometer costs so surprisingly little to buy, service, and maintain.



Model 11-A for group testing is adapted for multiple head phones. No mathematical computations

are necessary. Readings are taken directly from dials. Price — \$325.

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made by the Beltone Hearing Aid Company WORLD'S LARGEST EXCLUSIVE MANUFACTURERS OF AUDIOMETERS AND TRANSISTOR HEARING AIDS 2900 West 36th Street, Chicago 32, Illinois Mail coupon today for interesting, illustrated FREE Brochure that gives you the complete story of the Beltone Portable Audiometer line.

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MODEL 5224 LOW-COST SCHOOL

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2-Way Communication and Program Facilities

- # For up to 48 rooms
- * "All-Call" feature
- * Valume level indicator * Remote mike operation
- * Matching radio and phonograph available

This compact, precision-built system providing low-cost 2-way communication facilities is ideal for efficient supervision of all school activities. Announcements, speeches and voice messages can be made by microphone to any or all rooms (up to a total of 48); speech origination from any room to the central cabinet is available. Includes "All-Call" feature for simple instantaneous operation. Has input connections for remote microphone, radio, phonograph and tape recorder. Housed in compact, attractive all-steel blue-gray cabinet suitable for desk or table. When combined with the S404 matching radiophonograph below, a complete centralized school sound system is achieved at a remarkably low cost, within the means of even the smallest school.

MATCHING MODEL 5404 RADIO AND PHONOGRAPH

Combines perfectly with the S224 system. Provides complete facilities for the distribution and control of radio and phonograph pro-



radio and phonograph pro-grams. Includes precision-built FM-AM radio tuner and high quality 3-speed record player. The matching 3404 and S224 units may be stacked compactly to conserve desk space. Together, they form a complete and versatile sound system offering either communi-cation or program facilities at the lowest cost.

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School

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LEARN HOW MAJOR SCHOOL SYSTEM CUT WASHROOM VANDALISM 96% WITH BOB-RICK "TAMPER-PROOF" SOAP DISPENSERS, CUT MAINTENANCE COSTS 50%.



Write today for your free copy of this factual interview with board officials of a 400 school system. Find out for yourself how the complete line of "Tamper-Proof" Bobrick Soap Dispensers can save your school hundreds of dollars each year on replacements due to washroom vandalism. You also save on initial cost, maintenance time and most important soan! and, most important, soap!

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SE.318



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FABULOUS FEATURES! **Fully Automatic Timer!** Nine Veriable Speeds! Change Speed: without Swing Bowl Action, Easy Loading! Twice the Capacity of Other Makes!

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NEWSIMONIZ

NON-SCUFF FLOOR FINISH

WATER-REPELLENT COATING OF TOUGH, DURABLE

NOW spilled water and damp-mopping WON'T HARM HARD VINYL GLOSS

Don't worry, Miss Jones . . . moments after this floor is mopped, you'll see it snap back tough and glossy as ever!

New Simoniz Non-Scuff Floor Finish with vinyl is the secret. One coat of this amazing vinyl finish creates its own durable substrata layer—then quickly develops a brilliant, self-polishing, water-repellent top layer. Better still, as the top layer finally wears off, the substrata layer is still there—protecting your floor and providing the perfect base for a new coat!

Here, at last, is a floor finish for all floors—a finish that comes back hard and bright after water, slush, grime and dirt are mopped away. And this remarkable vinyl coating strips thoroughly, evenly with ordinary cleaner solutions, preventing build-up. No buffing cuts time and labor costs.

Be sure to call your Simoniz Distributor today—or mail the coupon—for a demonstration of new Simoniz Non-Scuff Floor Finish with vinyl!

COMMERCIAL

THE MATERIAL STATE WINYL

SIMONIZ

NON-SCUFF
SLIP RESISTANT

FLOOR FINISH

COMMERCIAL

Too good to hold for restyled container, new Simonix Vinyl Non-Scuff Floor Finish has been in old container since October. SIMONIZ

FOR LONG WEAR-LESS CARE

Simoniz Company (Commercial Products Division—SE-6) 2100 Indiana Avenue, Chicago 16, Illinois

- Without obligation, please send details on new Simoniz Non-Scuff Floor Finish with vinyl.
- Please send name of nearest Simoniz Distributor.

Name Title

Firm Name

Street Address

City State

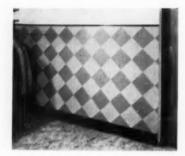
Vinyl Wall Tile

SE-424

For Corridors, Locker and Rest Rooms

Armstrong Cork Co, has developed a new type of moderately priced, fire-, soil, and scuff-resistant vinyl plastic wall covering called Vinyl Wall Tile. The product has many qualities that will appeal to schools: fire resistance, abrasion and smudge resistance, and resistance to oils and grease, soaps and detergents, and alkalis. Scratches may be removed by cleaning and rubbing with wax or a cleansing agent. The tile will not discolor with age.

Composed of Vinyl plastic and asbestos

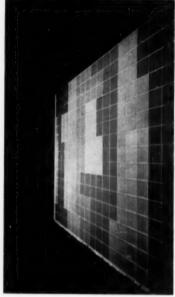


fibers, Vinyl Wall Tile has high dimensional stability. At the same time, it is

flexible enough to curve around inside and outside corners, providing both a saving in installation time and a more easily cleaned surface.

ARMSTRONG CORK Co., Lancaster, Pa.

Glass Block Curtain Wall SE-425 In Color



The conservative glass block has been given new glamour! It is now being used as a curtain wall material with a fired-on translucent ceramic finish. The colorsblue, green, yellow and coral-have a median light transmission range of about 25%. They allow the entry of diffused natural light supplemented by the effect of glowing color. They are available in the 8-inch square size.

Economy is one of the most important advantages of a curtain wall. According to Pittsburgh Corning engineers, a glass block curtain wall can be erected at a lower cost than most conventional curtain wall materials.

Glass blocks have a U factor which is the equal of an eight-inch masonry wall. Being glass there is no corrosion and few, if any, maintenance problems.

PITTSBURGH CORNING CORP., One Gateway Center, Pittsburgh 22, Pa.

Odor Neutralizer SE-426

For Kitchens, Rest Rooms

A one-ounce bottle of King-D deodorant lasts six to 12 weeks, due to its extreme concentration. It neither perfumes the air nor deadens one's sense of smell-it neutralizes odors found in kitchens, rest rooms, garbage rooms, storage rooms, lockers, athletic equipment closets, freshly painted areas, etc.

The inconspicuous wick/dropper bottle easily dispenses King-D as a vapor for generalized deodorization or in drop form

for localized areas.

EDWARD DON & Co., 2201 S. LaSalle St., Chicago 16, Ill.

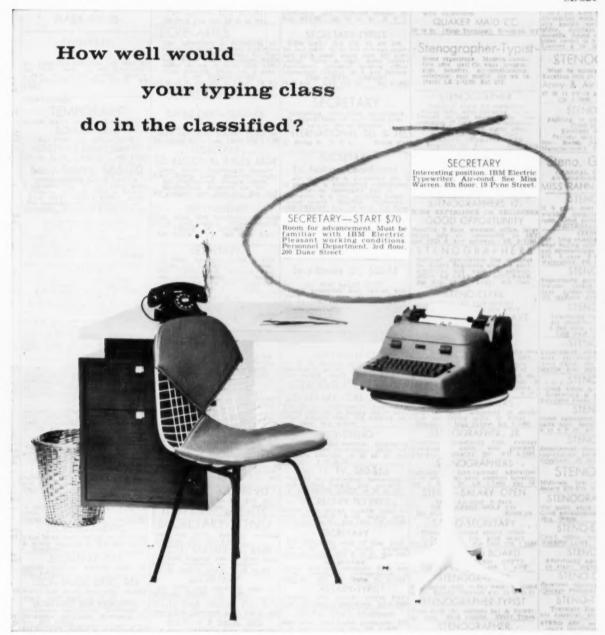


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Prepare them for their future jobs on the IBM —the favorite electric of the business world!

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You'll find, too, that you train your students better on the IBM Electric—the "teaching typewriter." It is recognized that students type faster and more accurately on any typewriter—even manuals—when they have been taught on the IBM Electric.



ELECTRIC TYPEWRITERS

-preferred over all other electrics combined!

Le-Jime COMMERCIAL REFRIGERATORS With Genuine Porcelain or Stainless Steel Finish Patented "GRAD-U-MATIC" Self-Defrosting Air Conditioning



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'Grad-U-Matic' Air Conditioning . . . or Dual Fan Mullion Cooling
. . Tubular Electric-Welded Steel Frames . . . Heavy Fiberglass
Insulation . . . Solid or Triple Thermopane Doors . . . Automatic
Self-Defrosting Refrigerating and Freezer Systems, Whatever your food requirements may be it will pay you to investigate this famous line at your "P-H" dealer's.





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SE-323

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COMFORT

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Specifically engineered for maximum safety so that lower over-all public liability rates are justified according to Safety Engineers of a leading insurance company.

ROLL-OUT GYM SEATS

HUSSEY MFG. CO., Inc.

570 R. R. Avenue

North Berwick, Maine

For new facilities, for replacement, BELA School Furniture deserves first consideration. Engineered for long years of service and to meet all school board specifications, BELA adheres to the same high standards of quality which have distinguished BELA Folding Chairs.

School officials, administrators and architects will find it advantageous to invite BELA to submit proposal on any installation.



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Throughout our best-planned school buildings, ceramic tile floors and walls are permanent, colorful assets that will never require costly maintenance or replacement. Exteriors, corridors, lobbies, classrooms, laboratories, washrooms . . . all are good investments of building funds when surfaced with one of the many types of Mosaic ceramic tile.



The only complete ceramic tile line

For free estimates on Mosaic Tile, see the yellow pages for your



THE MOSAIC TILE COMPANY

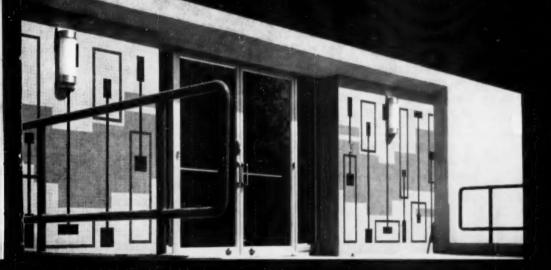
America's largest ceramic tile manufacturer General offices: Zanesville, Ohio Member—Tile Council of America, Inc. and The Producers' Council, Inc. Showrooms, Warehouses and Factories from Coast to Coast.



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44" sqs. ceramic mosaics.
Arch., Armet and Davis.
Tile Contr., Long Beach
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B. CORRIDOR WALL — Granitex Pattern 2257. Arch., Hazen and Robinson. Tile Contr., DeMarco Bros.

G. ENTRANCE PANELS— 1½" sqs. ceramic mosaics. Arch., Alford and Thomas. Tile Contr., Turner Tile.



AUDIO-VISUAL AIDS

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junior high and senior high classes. THE JAM HANDY ORGANIZATION, 2821 E. Grand Blvd., Detroit 11. Mich.

SE-502 Oil Film

Jungle Search, 16mm sound, 3 reels, 25 minutes. Rental or sale. This is the story of the search for oil, the long months, and sometimes years, of research and work that must be spent on the gamble that a new oilfield will be found. In the film, diagrams and models are used to explain the complicated structure of the Digboi oilfield in India where, through the years, almost a thousand wells have been drilled to tap the oil from strata at

different levels below the surface. Before a well can be sunk, teams of geologists survey the area. Three different geophysical methods used to study the formation of buried rock structures in the Assam valley are shown in detail. The film will be of particular value for the study of geology and engineering. British Information Services, 30 Rockefeller Plaza. New York 20, N. Y.

SE-503 Paper Sculpture

Of interest to art instructors in elementary schools and junior high schools is a new educational motion picture being released this month by Young America Films un-der the title Paper In The Round. 1 reel, in color. It demonstrates the ease with which paper can be bent, folded and decorated to create many interesting forms and shadows. Assisted by two young students, Mr. Shelley, the creator of the film, demonstrates the simplicity of the few operations involved, setting up a challenge to the audience to experiment with the technique. Young America Films, Inc., 18 E. 41st St., New York 17, N. Y.

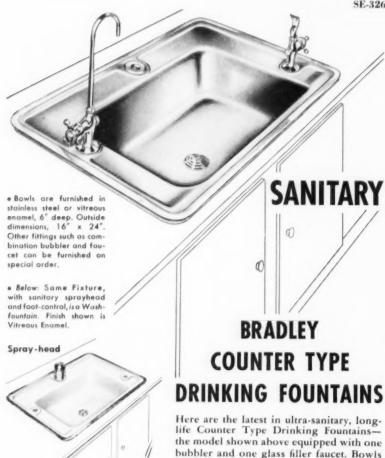
MANUFACTURERS' CATALOGS

SE-504 Swimming Pool Data Book

Catalog No. 506. Modern Swimming Pool Co, offers a free copy of their complete catalog and data book of swimming pool supplies, chemicals and equipment. It is a 52-page book, profusely illustrated, containing data, photographs and prices of every item needed to build a new pool, or to equip and maintain an existing pool. There is a section on pressure filter systems for both private and public pools; charts that enable the selection of the proper size filter; and detailed information about the new "buried type" filters for residential pools where space is limited. There is also a section on proper pool care and maintenance, and detailed descriptions of approved water - treatment chemical, "Berkite"—the newest discovery for the control of algae in swimming pools, reservoirs, lakes and ponds. Also included are photographs, detailed descriptions and illustrations of underwater floodlights, pool vacuum cleaners, observation windows, chlorinators, automatic skimmers, diving boards and stands. Modern Swimming Pool Co., Inc., Dept. 161. 1 Holland Ave., White Plains, N.Y.

SE-505 FMC Automatic Teamaker

A four-page brochure that announces new and revolutionary machine, The FMC Automatic Teamaker, has just been released by the Kitchen Department of Food Machinery and Chemical Corp. Titled Designed to Pour More Profits in Tea Serving, and printed in five colors, the Bulletin KB-571, illustrates and describes the first machine to brew and dispense hot or iced tea automatically. Brewing and servicing capacities are included in the complete listing of the Teamaker's specifications. Copy describes the machine's operation and the experience of test users. FOOD MACHINERY AND CHEMICAL CORP., Hoopeston, III.



foot pedal below controls supply of water from the Sprayhead. The Maximum Sanitary washing facilities.

See Pages 18 and 19 of Catalog 5601.

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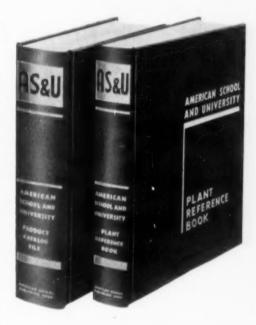
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MANUFACTURERS' CATALOGS

SE-506 Hollow Metal Doors

A revised 12-page booklet on steelcraft Hollow doors is now available from the Steelcraft Mfg. Co., Inc. The booklet contains up-to-date specifications and photographs on the Steelcraft series 16 panel and flush type doors, as well as complete details on hardware and accessories. Steelcraft Mfg. Co., Inc., 9017 Blue Ash Road, Rossmoyne, Ohio.

SE-507 Maps, Globes, Charts and Atlases

Cataling No. 90. A complete graded pro-

gram is offered by The George F. Cram Co., Inc. in a new 52-page catalog of maps, globes, charts and atlases. A feature of the 1957 catalog is Cram's new 64" large scale World and U. S. Maps, published January, 1957. The George F. Cram Co., Inc., Indianapolis, Ind.

SE-508 Toilet Compartments

Catalog No. 570. A completely new sixteenpage catalog is available from Fiat Metal Mfg. Co. detailing in full the application and planning of toilet compartment installations. The catalog shows typical installations of toilet compartments in schools, clubs and institutions of all types. In addition, it gives detailed planning diagrams and dimensional data, so that the catalog can be used as an actual toilet planning work book. Also included is constructional data on the complete line of Fiat compartments for every price range, along with illustrations and information on Fiat Junior compartment, entrance and urinal screens, shower dressing stalls, and hospital cubicles. Fiat Metal Mec. Co., 9301 W. Belmont Ave., Franklin Park, Ill.

SE-509 Floor Trucks

Booklet 57-S. A new two-color booklet, consisting of 28 pages, has been released by Nutting Truck and Caster Co. It illustrates trailers, drag-line trucks, dollies, jacks and skids, wagon trucks, barrel handling equipment, 27 different models of 2 wheel trucks and 4 wheel platform trucks plus a variety of casters and special duty trucks. Included are complete specifications on the most popular items plus many "in use" illustrations. Nutting Truck and Caster Co., Faribault, Minn.

SE-510 Rolling Gymstands

Catalog R-57. Wayne Iron Works announces the availability of a new 16-page catalog describing its complete line of rolling gymstands for space-saving and economical gymnasium seating. This bulletin shows typical installations and describes four Wayne rolling gymstand types: (1) standard model; (2) recessed model; (3) movable model; and (4) special balconv model. It lists complete architectural specifications and planning aids, including typical floor plans. Dimension tables give floor space requirements, opened and closed, and seating capacity for each Wayne rolling gymstand model. Sight-linestudy gives correct rise per row for good visibility. A section on accessories shows various special equipment for customizing these units to particular applications. WAYNE IRON WORKS, 147 N. Pembroke Ave., Wayne, Pa.

SE-511 Laboratory Glass Catalog

Fischer & Porter Co. has just issued a new 16-page catalog describing its line of Lab-Crest glassware, fabricated Pyrex brand glass. Catalog 80C100 gives specifications and prices of Lab Crest precision-bore burettes in a variety of types and graduation intervals. Included as well are aspirator bottles, gas collecting tubes, Karl Fischer apparatus separatory funnels, nitrometers etc. Fischer a Porter Co., 10 Jacksonville Road, Hathoro, Pa.

SE-512 Floor Maintenance

U. S. Sanitary Specialists Corp. has released a four-page brochure featuring a floor maintenance guide chart. The Clean-Coat-Control procedure is based upon the "Tileze XX" System, a spray-on, wipe-up method of cleaning and maintaining all types of floors. Four stages—preparation, treatment, finish and maintenance—comprise the complete program, and under each are listed specific product recommendations for each type of floor. U. S. SANITARY SPECIALTIES CORP., 1001 S. California Ave., Chicago 12, Ill.



Memorial elementary school, Burlington, Mass.; Architects: Edgar T. P. Walker & Theodore B. Hanna, Boston; Contractor: Joseph Rugo,

Inc., Boston





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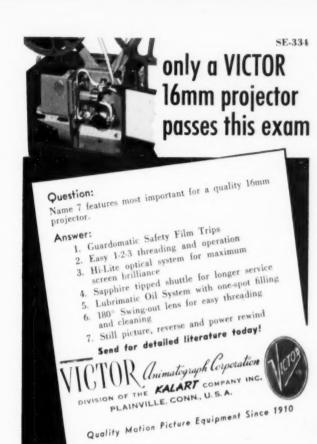
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